



Patience Is A Virtue.

Much like its namesake from the savanna of Africa, the Leopard 1 in World of Tanks performs best as a lurking predator. It is equipped with the high penetration 105 mm Bordkanone L7A3, the most accurate gun in the game. It's firepower, paired with a superior view range and high mobility, makes the Leopard 1 an excellent sniper, quickly able to re-position itself to advantageous positions and outflank enemy lines.

In World of Tanks you can command the Leopard 1 from the driver's seat. World of Tanks is a PC online game dedicated to tank warfare in the mid-20th century with over 300 of history's most iconic tanks.

A variety of tiers, upgrades, equipment and decals allow you to make each tank, your progression and your gameplay experiences unique.

Play For Free at Worldoftanks.eu











Welcome

"There wasn't anything so fine about it, I just fought for my life. A rabbit would have done that"

- Private Henry Johnson

s an African-American man living in the early 20th century, Henry Johnson was at best mistrusted and at worst openly loathed in his homeland. However, his brave conduct while fighting for flag and freedom in World War I proved that real heroism bears many faces.

In the desperate, dying embers of the Third Reich, real courage was shown on the unlikely faces of Berlin's children and the elderly. Nervously clutching their Panzerfausts, these Volkssturm fighters were neither trained nor equipped to take on the Red Army, but they fought and died on their capital's streets all the same.

Still, we can be thankful some of the worst events to blight humanity are consigned to the past, or were never realised. Take the Cold War, which saw us brush with selfdestruction and imagine the most devastating weapons never made.







CONTRIBUTORS



JACK GRIFFITHS

This issue Jack has been channelling the spirits of his Highland ancestors as he delved into the story of the doomed Jacobite rebellion (page 70). However, they took a backseat as he got up-close with a Rolls-Royce armoured car (page 86).



NICK SOLDINGER

Taking a break from frantically solving chess puzzles in back issues of *The Times*, Nick has returned to bring a blow-by-blow account of the Third Reich's endgame and the Red Army's final victory in Berlin (page 44).



MARWAN KAMEL

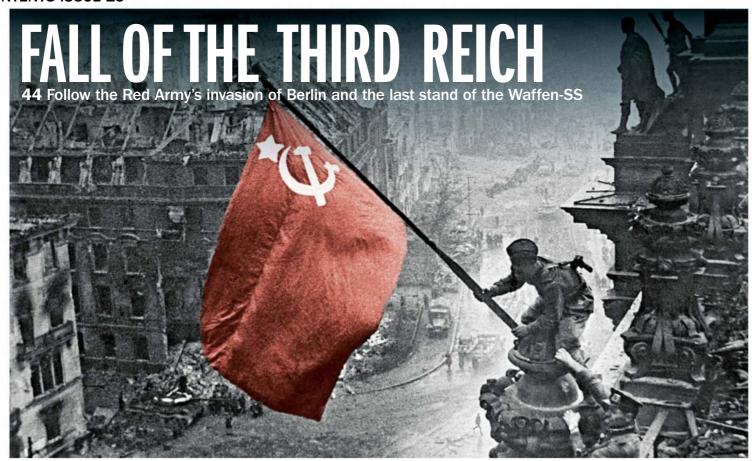
The Arab Spring has chilled to a frosty Winter, sending Libya and other nations into chaos. Marwan has taken on The Briefing this issue (p80) to unravel how this change in climate came about, and ponder whether the seasons may be changing again.

www.historyanswers.co.uk











14 Snipers

From Napoleonic Europe to the mountains of modern-day Afghanistan

16 Head to Head

The Eastern Front opens up with a Soviet sharpshooter against his Wehrmacht rival

18 World of snipers

Stalking the deserts, cities and jungles of Earth with deadly, calculated precision

20 Famous Operation

A Canadian solider pulls off the longest shot ever during Operation Anaconda

22 USMC Scout Sniper Kit

The tools of the trade for these ultraprofessional death dealers

24 Sniper heroes

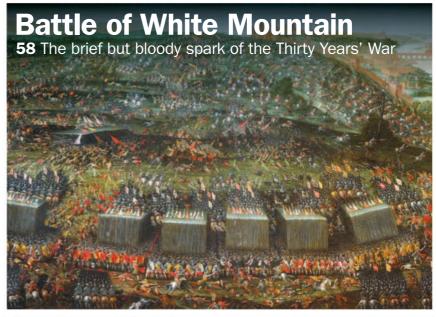
From the early crack shots in the trenches to the Soviet sharpshooters of World War II

26 Origins of sniping

Dr Peter Johnston of the National Army Museum on how sniping evolved

Subscribe

Never miss an issue, get your History of War before it's in the shops and save a bundle while you're at it!









06 Reader Survey

Tell us what you think of the magazine and be part of our Reader Panel

08 WAR IN FOCUS

Stunning imagery from throughout history, showing war in all its jaw-dropping detail

28 Ultimate Cold War weapons

The most impressive, weird and terrifying technologies of the last century

40 HERO OF THE CROIX DE GUERRE

Henry Johnson

The Harlem Hellfighter who made his name on the battlefields of World War I France

44 Fall of the Third Reich

Step inside the Red Army's advance on Berlin and Hitler's final days

58 GREAT BATTLES

White Mountain

A blow-by-blow account of the brief but bloody battle in the Thirty Years' War

66 TRIGGER POINT

Six-Day War

Retrace the chain of events leading to the Middle East's tumultuous conflict

70 Scotland's last rebels

Take a look at the clans and the plans behind the Young Pretender's uprising

80 BRIEFING

Libya in crisis

Marwan Kamel explores the historical roots of Libya's fresh civil war

86 OPERATOR'S HANDBOOK

Rolls-Royce armoured car

Jack Griffiths gets his hands on another beautiful war machine

92 Book reviews

A selection of the latest military titles waiting for you on the shelves

98 WAR IN NUMBERS

Cold War

Setting the chilling numbers straight on this secretive 20th-century crisis

ARMOURED CAR

86 Get under the bonnet of Britain's Rolls-Royce war machine

WAR READER SURVEY

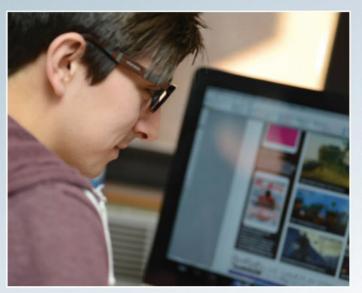
JOIN OUR READER PA

Take our 3-minute survey at historyanswers.co.uk/survey and win a place on our panel

Working on History of War, it's great to learn something new every day. But we mainly love to hear what interests you most, be it Napoleon's battle strategy, or the inner workings of a Panzer II. By answering just a few questions, you could be selected to join our first-ever History of War panel - get involved!



Tim Williamson Deputy Editor















Complete our survey and win your place today historyanswers.co.uk/survey







Taken **c. 1915**

An Australian soldier carries his wounded comrade away from the frontline in one of the most iconic images of the Dardanelles campaign. Masterminded by British commanders and politicians, including First Lord of the Admiralty Winston Churchill, the plan for the campaign was to knock the Ottoman Empire out of World War I for good. However, the enemy defences were tragically underestimated, leaving the assaulting French, British and ANZAC soldiers struggling against almost impossible odds. Weak and poorly supplied, the force began to withdraw by the end of the year.

CHALKE VALLEY HISTORY FESTIVAL

From 22-28 June, Chalke Valley will be playing host to a range of talks, debates, aeronautic displays and living history exhibitions. With the gorgeous backdrop of rural Wiltshire as their setting, Spitfires, **Hurricanes and Mustangs are just** some of the wonderful machines set to wow crowds during the festival's airshow. Among the wealth of academic talent during the festival will be Stephen Prince, Head of the Naval Historical Branch, MoD, who will be lecturing on Gallipoli at the Waterloo tent on Thursday 25 June. You can claim a free family ticket to the festival by subscribing to History of War, see page 56 to learn more! For more information, visit www.cvhf.org.uk.









SMPERS June 1988

With one shot capable of turning the tide in battle, the creation of sniper units forever changed the tactics of war

Left: The 95th Rifles was among the first specialised regiment for elite sharpshooters

95 RIFLE REGIMENT

ELITE BRITISH TROOPS CAPABLE OF TAKING DOWN NAPOLEON'S FINEST

Founded: 1802

Country: British Empire

Formed during the Napoleonic wars, this elite rifle unit would work in pairs and engage the enemy before the main infantry. The sharpshooters were armed with baker rifles, far more efficient for aimed kills than the muskets most troops were carrying. The unit, known as Green Jackets because of their distinctive uniforms, went on to play a crucial part in World War I and II.



1ST UNITED STATES SHARPSHOOTERS EXPERT MARKSMEN WITH NERVES OF STEEL

Above: A group of 1st United States Sharpshooters during the American Civil War

Founded: 1861 Country: USA

This regiment served the Union army in the American Civil War in an array of battles including Gettysburg, Yorktown and Petersburg. Every would-be recruit had to pass a strict marksmanship test that involved placing ten shots in a circle of ten inches from 200 yards away before they were considered for the regiment.

1ST PENNSYLVANIA REGIMENT

THE RIFLE BATTALION
BORN IN THE DAWN OF
THE AMERICAN ARMY

Founded: 1775 Country: USA

In 1775 the fledgling United States made a revolutionary decision to create the world's first all-rifle battalion. Thompson's Rifle Battalion, as it was known, was comprised of the finest sharpshooters that Maryland, Virginia and Pennsylvania had to offer. The regiment was created to instil terror in the British and saw action throughout the American Revolutionary War.

A sketch of a Pennsylvania sharpshoote

IMPERIAL GERMAN SNIPERS

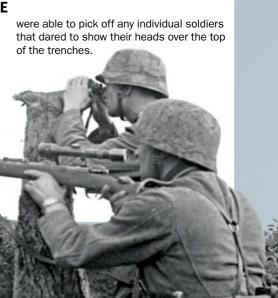
MASTERS OF TRENCH WARFARE

Founded: 1914

Country: German Empire

Unlike its enemies, Germany issued their trained snipers with optically equipped sniper rifles. This gave the German sharpshooters a great advantage and the French and Belgian troops felt the sting of their technically superior foes. The snipers

Germany adapted sniper tactics into WWII, here with a spotter and sniper in Voronezh, Russia





US MARINE CORPS SCOUT SNIPERS MORE THAN SIMPLY MARKSMEN

Founded: 1961 Country: USA

Established by Marine Corps officer Edward Land, the scout sniper programme accepts only those who have proved themselves capable and skilled soldiers and have earned the rank of Lance Corporal. As well as simply landing kills, Scout Snipers must also conduct reconnaissance and surveillance operations, gaining all the information that they can about the enemy and the terrain to report back.

5 Facts about SNIPERS

AN INCREDIBLE SHOT

The longest recorded sniper kill currently goes to Craig Harrison of the UK Household Cavalry. He killed a man from 2,475 metres (8,120 feet) away during the War in Afghanistan. Even more incredible – he did it twice.

TO KILL A SNIPE

The word sniper originated in the 1770s in British India, where soldiers who were able to kill the elusive snipe bird were dubbed 'snipers'.

THE POLITE SNIPER

George Washington was nearly picked off by a sniper. The British Captain Patrick Ferguson had a perfect shot on the American General, but felt it was unsportsmanlike to shoot an officer in the back, so put down his weapon.

IN A HEARTBEAT

An elite sniping technique is to take a breath before shooting and then hold it until the shot is taken. Some sharpshooters are even able to train themselves to shoot between heartbeats for maximum accuracy.

A COST-EFFECTIVE SOLUTION

Although it's expensive to train snipers, once they're on the field they save lots of money on ammunition. US snipers in Vietnam used 1.3 bullets per kill compared to 200,000 per kill by their fellow soldiers.

MARITIME SNIPER TEAMS (MST)

MODERN FACE OF SNIPING

Founded: 1980 Country: UK

Part of the Fleet Protection Group Royal Marines, MST teams are specialised units armed with large calibre L121A1 sniper rifles. The snipers usually work from naval helicopters, targeting the engines of speed boats carrying drugs. MST teams have also been used to combat piracy operations.

Right: A Royal Marine Sniper deployed on counter-drug operations in 2006



THE INFANTRY

Founded: 1743

Country: France

The Chasseurs à pied were a light infantry division of the

French army, specially trained

would also work as a scouting

force. Need for a rapid-response light infantry force emerged

party in advance of the main

during the War of the Austrian Succession, originally created for tactical purposes, the role of chasseurs à pied eventually

became very similar to the

in marksmanship. This unit





In the savage combat of the Eastern Front, snipers could turn the tide of battle

WEHRMACHT SNIPER

WEAPONS: KAR98K BOLT-ACTION RIFLE, GEWEHR 98, GEWEHR 43
LOYALTY: NAZI GERMANY

TRAINING

The Wehrmacht didn't have quite as advanced a training regime as the Soviets but still had many skilled marksmen. The German infantry were more all-rounders than specialised snipers on the whole.

ACCURACY

The Kar98k was the standard issue infantry rifle but could be fitted with a telescopic sight. It had an accurate range of 600 metres (1,969 feet).

Gewehr 98 rifles were also used.

EQUIPMENT

If the enemy got in close, the Kar98k could affix a bayonet and a grenade launcher attachment. The rifle could also utilise a suppressor.

RATE OF FIRE

The rifle was more durable than its Soviet equivalents but the design meant its rate of fire was slightly lower. It also depended on how quickly the bolt could be operated.

FIELDCRAFT

The German sniper was taught to almost never take a second shot, as that would reveal their position. As they were advancing and attacking, snipers were slightly less effective.

TOTAL



MAKKSMEN OF THE REICH

Third Reich snipers, the two most famous names are Matthäus Hetzenauer and Josef Allerberger, who had a few hundred victims between them. The Germans weren't too far behind the Soviets in sniper prowess but lacked the know Russian terrain and had to be reckless in their attacks. The Kar98k was later by the improved semi-automatic Gewehr 43, but it was produced too little, too late. The engineering of the Kar98k lived on after the Third Reich and found a new lease of life. It was exported to many developing countries.







RED ARMY SNIPER

WEAPONS: MOSIN-NAGANT 1891, 30 BOLT-ACTION RIFLE, TOKAREV SVT-40/M38 CARBINE, M44 CARBINE LOYALTY: USSR

TRAINING

The Soviets took great pride in their sniper training and were the only country in the lead up to war that had specific training for snipers, who were both male and female.

ACCURACY

With a range of 500 metres (1,640ft), the 1891/30 model was slightly inferior in range. It was later updated in a carbine style but it was this version that was most widely used.

EQUIPMENT

A bayonet could be attached in close-quarter combat and open sights were retained for medium-range warfare. Each soldier carried tools for repairs but the poor wooden stocks let the weapon down.

RATE OF FIRE

A skilled marksman could fire up to five shots per minute but the number was often a lot less to maintain concealment and not give away their position.

FIELDCRAFT

Red Army snipers were taught to remain mobile and not stay in one position for too long. Against enemy snipers, dummies were used to reveal the whereabouts of a rival.



SOVIET UNION SNIPERS

Soviet snipers gained a reputation as the best around. Vasily Zaytsev is often considered one of the deadliest with more k-to-the-wall defence of Stalingrad. The sniper rifle of the Soviets in the war (Mosin-Nagant 1891/30) was updated and re-engineered frequently, resulting in later carbine and semi-automatic versions. The Russian fondness of sniper rifles continues to this day with the 1968 Dragunov undoubtedly still one of the best on the planet.



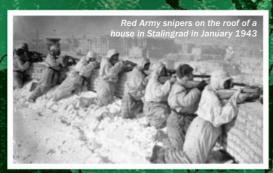


SNPERS OF THE WORLD

The rifles and engagements that brought sniping to the forefront of war

BATTLE OF STALINGRAD STALINGRAD, USSR AUGUST 1942 - FEBRUARY 1943

The ruined city of Stalingrad is the perfect environment for snipers to unleash hell upon their enemies. Both sides used snipers on the Eastern Front, but the high kill counts of the Red Army sharpshooters quickly sends Axis morale plummeting and turns soldiers into celebrities.



Sako TRG-42

Produced: 2000 Speciality: Powerful ammunition, resistance to wear Location: Finland

Mauser M59

Produced: 1959 Speciality: Target rifle, all-weather use Location: Norway

Gewehr 98

Produced: 1898 Speciality: Controlledfeed bolt action **Location:** Germany

Whitworth rifle

Produced: 1857 Speciality: Long-range sniping, accuracy **Location:** United Kingdom

Barrett M82

Produced: 1982 Speciality: Low-felt recoil, rapid fire **Location:** United States

Mondragon M1908

Produced: 1908 Speciality: Self loading, automated repeating action **Location:** Mexico

FN Special police rifle

Produced: 2004 Speciality: Accuracy, low maintenance Location: Belgium

Solothurn S-18/100 anti-tank rifle

Produced: 1930s Speciality: Large ammunition, power ocation: Switzerland



Produced: 1969 Speciality: Durability, accuracy Location: Austria

2 BATTLE OF SARATOGA

NEW YORK. UNITED STATES 19 SEPTEMBER 1777

At the climax of the Saratoga campaign in the American Revolutionary War, Daniel Morgan and his marksman pick off every British officer in the advance company, turning the tide and claiming victory for the Americans







MEUSE-ARGONNE OFFENSIVE CHATEL-CHÉHÉRY, FRANCE 8 OCTOBER 1918

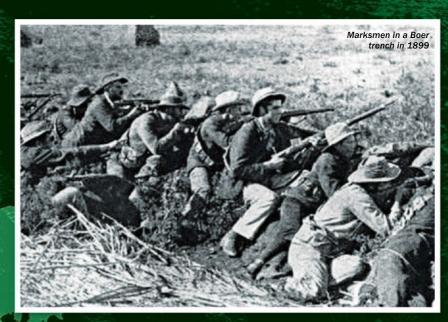
In the American-led offensive to breach the Hindenburg Line, Alvin C York leads a small regiment against heavy machine gun posts. He begins sharp shooting soldiers one by one. By the end, 132 Germans are taken prisoner and the machine guns fall silent, allowing the Allies to pass through.

Dragunov sniper rifle

Produced: 1963 Speciality: Squad support, precision shooting Location: Russia

Bor rifle

Produced: 2007 Speciality: Accuracy lightweight, reduced recoil **Location:** Poland



5 BATTLE OF SAN MARCIAL IRUN, SPAIN 31 AUGUST 1813

The 95th Rifles are used throughout the Peninsular campaign of the Napoleonic Wars, but they especially shine during the battle of San Marcial. One company of Rifles holds off an entire French division, inflicting 231

casualties and suffering just 14 themselves.

6 SECOND BOER WAR SOUTH AFRICA, SWAZILAND 11 OCTOBER 1899 - 31 MAY 1902

Sniping becomes a major part of war as the British face Boer soldiers who boast excellent marksman skills and modern guerrilla tactics. The British respond with their own official unit of snipers.

Type 38 rifle

Produced: 1906 Speciality: Limited recoil, long length for bayonet use Location: Japan

Tabuk sniper rifle



Produced: 1978 Speciality: Precision fire Location: Iraq



CHORA VALLEY, AFGHANISTAN JULY 2006

During a search and destroy mission, Australian sniper Roberts-Smith prevents a patrol from being overrun by picking off the Anti-Coalition Militia with sniper fire. The operation is a success, forcing the Taliban to flee the area.

PENNSYLVANIA, UNITED STATES 8 THE DARDANELLES GALLIPOLI PENINSULA, OTTOMA

1-3 JULY 1863

At the turning point of the American Civil War, the 1st and 2nd United States Sharpshooters play a key role in delaying Confederate attacks at the Peach Orchard and Devil's Den.

EMPIRE 25 APRIL 1915 - 9 JANUARY 1916 With the aim of capturing the Ottoman capital, Allied troops land on Turkish soil. However, they are plagued by Turkish snipers, who use the leafy terrain to their advantage to rain bullets upon their enemies.





OPERATION ANACQUEE

The war in the hills of Afghanistan was a deadly game of cat and mouse, with sharpshooters taking centre stage

ry, rugged mountains are ideal territory for a sniper. It was here in Shah-i-Kot Valley, Afghanistan, in March 2002 that Master Corporal Rob Furlong of Princess Patricia's Canadian Light Infantry and his fiveman team found themselves part of Operation Anaconda, with the objective of clearing out the Taliban and al-Qaeda militants from the hills. After spotting three fighters, Furlong opened fire, successfully completing the longest-range sniper kill of all time at 2,430 metres (7,972 feet). Furlong's record stood for more than eight years until it was topped by 45 metres (147 feet) by the British Army's Craig Harrison.



FLIGHT TO AFGHAN

In the wake of the 9/11 terror attacks, American troops are dispatched to Afghanistan to eliminate the Taliban and al-Qaeda forces. Joining them are a number of Canadian battalions, including a unit of five snipers led by Master Corporal Graham 'Rags' Ragsdale.

2 IN THE SHAH-I-KOT VALLEY

Touching down in the valley, the unit are now part of the largest ground offensive in the War on Terror. Their Chinook is strafed with gunfire as it attempts to land and as dusk approaches, mortar flashes light up the sky.

(3) ENEMY SIGHTED

The next day the unit are on the lookout for Taliban squads in the area. In the afternoon, they spot a three-man Taliban team moving on a dried-up river bed below.

ASSESSING THE THREAT

One of the Taliban soldiers has a 7.62mm belt-fed RPK machine gun. Master Corporal Rob Furlong decides that he will be the primary target. The RPK is the Afghan equivalent of the M240 and is one of their most effective weapons.

READYING THE SHOT

Master Corporal Tim McMeekin is Furlong's spotter for the shot. He goes to work setting up the laser rangefinder to gauge the distance of the target. Wind and elevation are also taken into account as Furlong steadies his TAC-50 sniper rifle.

(i) STRIKE 1

Furlong regulates his breathing as he looks through the telescopic sight. The first attempt is a miss as the .50 BMG round grazes the floor near to the target. Luckily for the unit, the Taliban trio shrug it off as standard harassment fire.

M STRIKE 2

With this reprieve, the left-handed Furlong has a second chance. This shot is narrowly closer as it strikes the target's backpack. The round was on course but the Master Corporal had squeezed the trigger slightly to one side, putting it off centre.

3 ASSASSIN SHOT

The target is walking, so to boost chances of a hit, Furlong uses the assassin shot method. This technique allows the target to walk into the crosshair, so Furlong fires just before his adversary hits the centre.

9 STRIKE 3

Running out of time, the 26-year-old Canadian will not be denied again. Furlong squeezes the trigger and the bullet rips into the target's torso, killing him.

ID MISSION COMPLETE

From here on out, Rags' unit use their talents to take out many more al-Qaeda firing positions and patrols. They are extracted after nine days and the five men – Perry, Ragsdale, Eason, Furlong and McMeekin – are all awarded Bronze Stars.

INSIDE THE RECORD-BREAKING RIFLE

SIGHT

The weapon uses a 5-25x telescopic sight for long-range shots, which is all attached to a bipod that supports and steadies the gun. Bullets travel at 823 metres (2,700 feet) per second and can even go through walls.

FIRING SYSTEM

A fitted muzzle is used to lessen the recoil from the immense power of the gun. The maximum range of the TAC-50 is considered as 2,000 metres (6,561 feet) but not for Furlong, who eclipsed this by 430 metres (1,410 feet).

TAC-50 SNIPER RIFLE

ORIGIN: USA

MANUFACTURE: MCMILLAN FIRST YEAR OF SERVICE: 2000

AMMUNITION: .50 BMG FROM A FIVE-ROUND DETACHABLE BOX MAGAZINE

RANGE: 2,000M (6,561FT)

USERS: USA, CANADA, FRANCE, TURKEY, ISRAEL

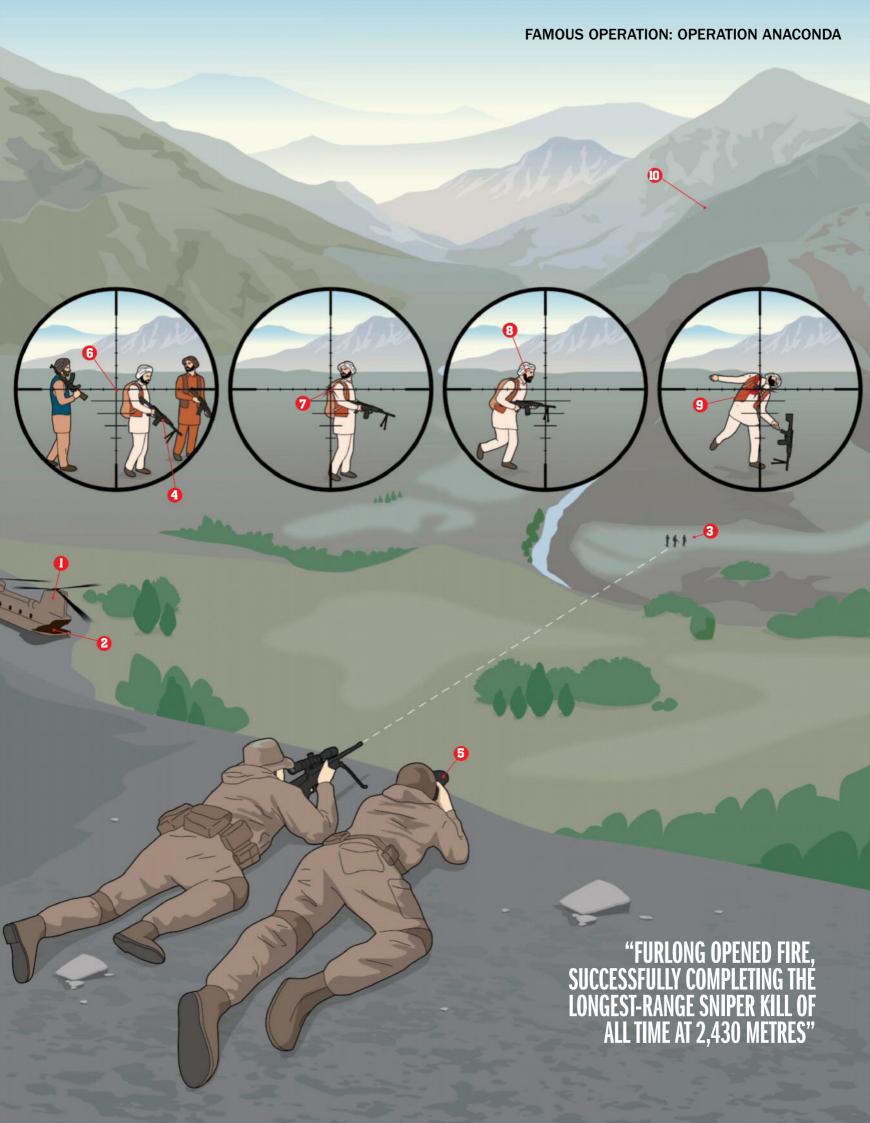
UTILITY

The TAC-50 is primarily suited for taking down lightly armoured vehicles but can also be used on high-value personnel. Rob Furlong's target was hit less than four seconds after the trigger was pulled.

AMMUNITION

A five-round detachable magazine is used to hold the .50 BMG rounds in place. Furlong used Canadian rounds but had run out of them during Anaconda, so resorted to using American versions that were more effective at higher altitudes.

"THE MAXIMUM RANGE OF THE TAC-50 IS CONSIDERED AS 2,000 METRES (6,561 FEET) BUT NOT FOR FURLONG, WHO ECLIPSED THIS BY 430 METRES (1,410 FEET)"





SHARP EYE There are many re

There are many requirements for being a sniper, but surprisingly perfect sight isn't one of them. As long as a soldier's vision can be corrected to 20/20, via eyeglasses or contact lenses, then a recruit can take the course. Colour blindness, meanwhile, is an obstacle.

TEAM EFFORT

Each Scout Sniper Platoon will have about 8 to 10 teams of two members. These pairs often work alone with little support, so the relationship between the spotter and sniper is of paramount importance.



6.5×47MM

Years active:

2005-present This cartridge is what makes the M40 rifle so deadly. Designed specifically for extreme accuracy, this bullet is optimised for hitting targets and will fly further than its equivalents. Its reduced recoil and tremendous speed allows snipers a quicker follow-up shot, saving valuable moments.

Right: Developed in Finland, the bullet is also carefully designed to prolong barrel life



"AS IT IS SHORTER AND LIGHTER, THE RIFLE PROVIDES THE SNIPER WITH MORE MOBILITY AND QUICKER FOLLOW-UP SHOTS"

M40 RIFLE

Years active: 1966-Present This bolt-action sniper rifle has served United States forces since the Vietnam War. Every M40 is built from a basic Remington 700 rifle, so many variants have emerged. Capable of extreme levels of accuracy and proven reliability, this powerful weapon is a pioneer of modern rifles.

reliable and flexible

Left: Capable of rapid fire, this semi-automatic weapon has proven

Years active: 2008-present

The SASS (M110 Semi-Automatic Sniper System) can deliver precision fire to enemies up to 800 metres away. As it is shorter and lighter, the rifle provides the sniper with more mobility and quicker follow-up shots. This gun was the winner of a competition ran by the US Army for a new sniper rifle.

Right: The M40 is still widely used by US and international forces

Years active: 2007-present

The essential feature of any sniper rifle, the scope ensures the absolute accuracy of the shot by magnifying the target for the shooter. The optics are housed in steel tubes mounted to a bracket atop the rifle. This scope is a Schmidt & Bender M-854155 and can be adjusted to allow for a host of weather variables.

> Right: Telescopic sights and their various reticles have changed the face of modern sniping





SNIPER HEROES

One expert sniper can be more deadly than an entire squad – these sharpshooters were the scourge of their enemies

CARLOS HATHCOCK

Years active: 1959 - 1979

Regiment/Force: United States Marine Corps Country: USA

Marksmanship for Hathcock was less of a hobby and more of a necessity. Growing up with just his grandmother, he would often take his dog into the woods, shooting and hunting to try and help feed his family. Armed with a .22-caliber JC Higgins single-shot rifle, it was Hathcock's dream to join the Marines; as soon as he hit 17 he signed up, starting his career as a military policeman. As snipers gradually became an important part of platoons, Hathcock was handpicked and began his sniping career.

He soon proved himself to be a deadly asset to the US efforts in the Vietnam War, killing at least 93 NVA and Viet Cong personnel, although he estimates the real figure to be at least 300. The NVA began to take notice of the hotshot American and placed a huge \$30,000 (£20,000) bounty on his head, compared to the average of \$8-\$2,000 (£5-£1,300) for US snipers. Every Viet Cong marksman who wished to collect the bounty failed. Soon Hathcock had earned the nickname 'White Feather Sniper' due to the feather he kept in his hat; soon marines all over were copying his style to confuse the enemy.

One of Hathcock's spectacular shots has gone down in history: while stalking an enemy sniper he managed to shoot straight through the sniper's rifle scope, hitting him in the eye and killing him. Another one of his famous kills was a female Viet Cong sniper known as Apache, who had become infamous for her brutal methods of torture.

Hathcock's career as a sniper ended in a blaze of glory when an Amtrak he was riding in struck a landmine. The heroic soldier suffered severe burns as he pulled seven marines out of the fiery vehicle. Hathcock soon became a national hero, went on to establish the Marine Corps Sniper School and received the Silver Star for his act of heroism.



LYUDMILA PAVLICHENKO

Years active: 1941 - 1953
Regiment/Force: Red Army
Country: Soviet Union

When the Soviet Union was invaded by Germany in 1941, Pavlichenko was studying history at university. She immediately volunteered for the army, but, as a female, was instead offered the chance to become a nurse. However, Pavlichenko had been participating in shooting clubs since a very young age and so was accepted into the Red Army's 25th Rifle Division.

Armed with a Tokarev SVT-40 semiautomatic rifle, Pavlichenko fought near Odessa and amassed 187 kills over two months. Now making a name for herself, she was transferred to Sevastopol, where she added 257 more to her kill count. After becoming wounded, and now a celebrity, Pavlichenko was withdrawn from the war. Not content with returning to a quiet life, she conducted publicity visits around the world and became the first Soviet citizen to be received by a US president when she visited Roosevelt in the White House.

FRANCIS PEGAHMAGABOW

Years active: 1914 - 1919

Regiment/Force: Canadian Expeditionary Force **Country: British Empire**

Life did not begin easily for this Ojibwa warrior. Pegahmagabow was orphaned at a young age and grew up on Parry Island First Nation. Regardless of his childhood, when war broke out in 1914, he volunteered to join the Canadian Expeditionary Force.

Pegahmagabow was among the first Canadians to be sent to fight in Europe and he

immediately saw action in the Second Battle of Ypres. It was during this battle that Pegahmagabow's expert marksmanship skills began to get noticed and he went on to employ his deadly abilities at the Battle of the Somme, where his leg was injured.

Not only an expert shot, Pegahmagabow also demonstrated his fearlessness by carrying messages across the lines. During the Battle of the Scarpe he even braved heavy machine gun fire in No Man's Land to fetch vital supplies. By the end of the war, Pegahmagabow was credited with killing 378 Germans and capturing 300 more.

"BY THE END OF THE WAR, PEGAHMAGABOW WAS CREDITED WITH KILLING 378 GERMANS **AND CAPTURING 300 MORE"**

VASILY ZAYTSEV

Years active: 1937 - 1945 Regiment/Force: Red Army **Country: Soviet Union**

Vasily Zaytsev is a name that has gained recognition in Russia and North America for very different reasons. A fictionalised Zaytsev stars as the protagonist in the film Enemy At The Gates but in Russia Zaytsev is somewhat of a national hero.

Zaytsev perfected his marksmanship skills as a boy, shooting deer and wolves in the Ural Mountains near his home. Zaytsev signed up for the army at the outbreak of

war and served on the Eastern front, however it was during the Battle of Stalingrad that he earned his reputation. During the siege of the city, Zaytsev killed somewhere in the region of 225 enemies, though Zaytsev himself estimates it was closer to 400.

One of the crack shot's tactics was to cover one large area from three positions, with two men - a sniper and scout - at each point. This technique is still being used today and is known as the 'sixes'. Zaytsev's deadly reputation was even used by the Red Army in propaganda to strike terror into the Germans.



SIMO HÄYHÄ

Years active: 1925 - 1940 Regiment/Force: Finnish Army **Country: Finland**

A skilled marksman from an early age, Häyhä was a hunter and farmer before he joined the Finnish voluntary militia, the White Guard, aged 20. Having won a host of awards, Häyhä got the chance to really prove himself when the Soviet Union invaded Finland in 1939 and started the Winter War.

With his small 5ft 3in frame, and clothed in white camouflage against the snow, Häyhä was almost invisible to his enemies. He was also known to hold snow in his mouth while sniping to avoid steamy breaths giving



away his position. His elite marksmanship skills became the bane of the Red Army, and he killed at least 505 Soviet soldiers in less than 100 days. The Soviets were forced to directly target the 'White Death', and on 6 March 1940 they finally landed a hit. Although he was shot in the jaw, Häyhä regained consciousness on 13 March, the day peace was declared.

HESKETH HESKETH-PRICHARD

Years active: 1915 - 1917 Regiment/Force: British Army **Country: British Empire**

Although Hesketh-Prichard can't boast the high kill counts of the snipers on this list, his ingenious innovations to sniping practice had an enormous impact on the British Army during World War I.

When Hesketh-Prichard was sent to the frontlines, it was as an eyewitness officer for the press office. While in the trenches he was shocked to discover how many allied soldiers were being picked off by German snipers, and in turn the poor marksmanship of their British equivalents. Hesketh-Prichard made it his mission to improve the skill of British snipers, so calibrated and improved the telescopic sights

they possessed and paid for more hunting rifles to be sent to the front lines.

He also created ingenious methods to reduce the British death toll, such as the use of a dummy head to locate enemy snipers. His innovative ideas won the support of the army and in August 1916 he set up the First Army School of Sniping. By the end of his involvement in the war. Hesketh-Prichard was credited with saving more than 3,500 allied lives.

HIRAM BERDAN

Years active: 1861 - 1864 Regiment/Force: Union Army

Country: USA

Even before the United States was torn in two by civil war, Berdan was renowned for his excellent marksmanship skills. His talent had seen him named the top rifle shot in the country and his skills extended than simply hitting targets he also inv a repeating rifle and musket ball.

When war broke out the Union

Army quickly recruited Berdan to draft and command the 1st and 2nd US Sharpshooters. Berdan's two sharpshooter regiments proved a great asset to the Union Army during the Battle of Shepherdstown and especially

at the Battle of Gettysburg. His sniper regiments were able to delay the confederate attacks, greatly contributing to the ultimate Union victory. After the war, Berdan returned to his career as an inventor, creating several innovative devices

such as a long-distance rangefinder. a torpedo boat and a submarine gunboat.



THE SHARPSHOOTER PSYCHE

National Army Museum curator and historian Dr Peter Johnston on the birth and evolution of the British Army sniper

WHEN DID THE ROLE OF THE **SNIPER EMERGE?**

Sniping is linked to the development of firearms. As long as musketry has been used in warfare, there have been skilled marksmen who dedicate themselves to becoming proficient in shooting. With the development of rifling, accuracy and range greatly increased and this led to a revolution in firearms tactics. One early notable use of this was during the American War of Independence, in the Battle of Saratoga. There, rather than engage the well-drilled and professional British troops at close range, where they would be at a disadvantage, the American colonists would disguise themselves in the woods and use early rifles to fire on the British at long range, in particular targeting officers to lower morale and effectiveness among the British troops, before then engaging them at close range.

The term 'sniper' derives from the British experience in India in the late 18th Century, where hunters of snipes, a type of bird, were called snipers. However, it was not widely used until towards the end of the 19th Century, with the term 'sharpshooter' being preferred when describing skilled and proficient marksmen.

WHAT CHARACTERISTICS DO YOU NEED TO BE A GOOD SHARPSHOOTER?

Sniping is about more than just being a good shot. The ability to consider and adjust due to countless variables, such as wind speed, wind direction, range, target movement, and many others, means it's an incredibly technical profession. The ability to conceal themselves, to find the best positions from which to take shots and to move stealthily in enemy territory are all vital skills for snipers. Then of course there is patience, the ability to wait and choose when - and when not - to fire, which arguably may be the when it comes to sniping.

HOW DID SNIPERS FIT IN WITH OTHER TROOPS ON THE FRONTLINE?

While first and foremost they are designated to use marksmanship to engage and eliminate single targets, they can fulfil many duties. One of their major roles is to provide reconnaissance, moving ahead of larger forces to scout out territory and look for enemy troops or ambushes. As such, they often provide 'overwatch', a term from US military doctrine meaning providing covering fire for advancing units, usually from an

most important characteristic of all

"THE TERM 'SNIPER' DERIVES FROM THE BRITISH EXPERIENCE IN INDIA IN THE LATE 18TH CENTURY, WHERE HUNTERS OF SNIPES, A TYPE OF BIRD, WERE CALLED SNIPERS"

elevated or concealed position. They also provide combat support and can be used in a defensive, as well as an offensive, capacity. Additionally, snipers will participate in psychological operations against the enemy.

WHAT IS THE BEST SNIPER RIFLE IN THE WORLD?

There is enormous debate about what the best sniper rifle is, and snipers prefer to use different weapons in different scenarios. Sniper rifles are generally boltaction rifles. This means the sniper must load and chamber each round he fires. Though they are more difficult to operate and have a much slower rate of fire, bolt-action rifles are preferred because they have fewer moving parts than automatics. There are semi-automatic sniper rifles as well though, such as the M21. The British Army instigated a series of improvements based on their experiences in Afghanistan. This led to the issue of the L115A3 rifle from 2008 as part of the specific Sniper System Improvement Programme (SSIP).

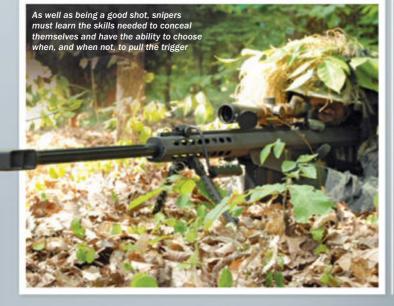
HOW DO SNIPERS TRAIN TO BE SO ACCURATE AND **CALM UNDER PRESSURE?**

In the British Army, you cannot join specifically to be a sniper. Soldiers can only apply to be snipers once they are already in the Army. If accepted, soldiers learn to fire their sniper rifles accurately over long distances, build and camouflage observation posts and use specialist surveillance kit. It is demanding, and involves as much mental as physical and technical training. The US Marine Corps sniper course is one of the hardest training courses in the US military, with a failure rate of more than 60 per cent and a

long list of prerequisites for recruits, including "a high degree of maturity, equanimity and common sense." Being a good shot is not enough to qualify! In all training regimes, realism is emphasised and high standards enforced. This means that when snipers are deployed in the field. they have a rigorous training programme to fall back on, and by implementing their training can be effective.

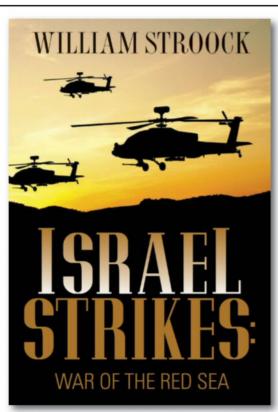
IS THERE A PARTICULAR WAR, CAMPAIGN OR OPERATION IN WHICH SHARPSHOOTERS WERE PARTICULARLY EFFECTIVE?

When used effectively, sniping can be a valuable tool in any military arsenal. The use of longer-range weapons and greater accuracy was important in the American War of Independence, and the British developed specialist sharpshooters in the Rifles during the Peninsular War, who were issued with more accurate weapons and trained specifically as skirmishers. At the outbreak of war in 1914, only the German Army had sharpshooters equipped with specialist scopes. But as stalemate and trench warfare took hold, the other powers saw the potential and necessity of having specialist marksmen and looked to develop snipers - with the British, for example, founding their sniping school in 1915. The noted explorer, adventure, and big game hunter Hesketh Hesketh-Pritchard began instructing there from 1916, and in 1920 published Sniping in France, which is still used today. In World War II, the Soviet Union in particular deployed snipers on a massive scale, and 428,335 were trained by the Red Army.









- Missiles over Israel The Cabinet in Crisis
 - Gaza Aflame Sudan invaded
- The Lights are going out across the Middle East

Available on



Military books for collectors NEW RELEASE!



Military Mode Publishing

01462 817093 • PO Box 130, Hitchin, Herts. SG5. UK



nfo@militarymodepublishing.com • www.militarymodepublishing.con





RSONIC LOW

BECAUSE THE COLD WAR WOULDN'T HAVE BEEN THE SAME WITHOUT A REALLY NASTY NUCLEAR WEAPON

The Supersonic Low Altitude Missile – or SLAM - was developed under the similarly innocuoussounding code name Project Pluto and was an unmanned vehicle for a nuclear payload. In the event of the anticipated nuclear war, it could be launched to fly at supersonic speeds

of up to Mach 4.2 over extreme ranges of nearly 200,000 kilometres (120,000 miles). It could achieve these speeds at low altitude and below enemy radar, trailing a powerful sonic shockwave that could shatter windows, flatten small structures and burst eardrums.

SLAM was capable of deploying a varied payload, from a single 6,400lb nuclear bomb to several separate 350lb bombs on multiple targets. This made it a versatile weapon of mass destruction and certainly one to be feared if it had ever been commissioned.

But it's the ramjet engine that is SLAM's particularly horrible innovation: this device superheated air from the inflow via nuclear fission, rather than igniting chemical fuel. As a result, its exhaust wasn't the benign contrail left in the sky by a common jet aircraft, but radioactive fallout that would contaminate the ground below it.

Even more devastating, the reactor core was practically unshielded, blasting any living thing along SLAM's flight path with a deadly dose of direct neutron radiation. Once its supersonic journey was complete, SLAM would then career into its strategically chosen crash site, which would be thoroughly irradiated by the exposed engine core.

Thankfully, the inherent problem of safely testing the nuclear ramjet as well as its cost, among other factors, meant SLAM was ultimately shelved in 1964.



TRACKING AND COMMUNICATIONS

around a single nautical mile. or about 1.8 kilometres. Flight computers and antennae were housed in the nose cone and were shielded from the nuclear payload and ramjet. It could of around two hours

SLAM was accurate to within

reach any target on Earth inside

NEVADA TEST SITE

AMERICA'S NO. 1 SPOT FOR NUCLEAR EXPERIMENTS

After the first use of nuclear weapons in 1945, the US Government founded the Atomic Energy Commission in 1946 to regulate, control and develop nuclear materials. Comprised of dozens of separate areas, nuclear tests were conducted at the site between its opening in 1951, until testing was

officially ceased in 1992. Over 800 nukes were tested, mostly underground, during this time, leaving the landscape visibly scarred with craters. In 1970 the 10-kiloton Baneberry test went wrong and the radioactive cloud emitted by the blast escaped up to 3,084 metres (10,000 feet) into the atmosphere.



RAMJET

The nose cone retracted during flight to provide the air inflow for the nuclear ramjet. This type of engine is air-breathing and cannot produce thrust unless the vehicle is moving at speed. SLAM used nuclear fission to heat the air to around 500 degrees Celsius (932 Fahrenheit) and compressed to 316 pounds per square inch.

ALTITUDE **NUCLEAR PAYLOAD** SLAM could carry one large nuclear bomb or several smaller bombs, which could be dropped on separate targets. This was its primary weapon, although the radioactive contamination it spread could be just as devastating. **BOOSTERS** Although the nuclear ramjet would be activated at the moment of launch, the missile launch itself would be via chemical rocket boosters to a safe cruising altitude. The US Army couldn't be irradiating its own country, after all.

SUPERSONIC LOW ALTITUDE MISSILE

WEAPON TYPE: INTERCONTINENTAL BALLISTIC MISSILE

MAX SPEED: 5,145KM/H (3,196MPH)
MAX RANGE: 200,000KM (124,274MI)
PAYLOAD: NUCLEAR BOMB (UP TO 6,400LB)
FUEL: ENRICHED URANIUM DIOXIDE

OPERATIONAL WEIGHT: 27,669KG (61,000LBS)

LENGTH: 26M (88 FEET)

STATUS: PROTÒTYPE (CÁNCELLED)

"ITS EXHAUST WASN'T THE BENIGN CONTRAIL LEFT IN THE SKY BY A COMMON JET AIRCRAFT, BUT RADIOACTIVE FALLOUT THAT WOULD CONTAMINATE THE GROUND BELOW IT"

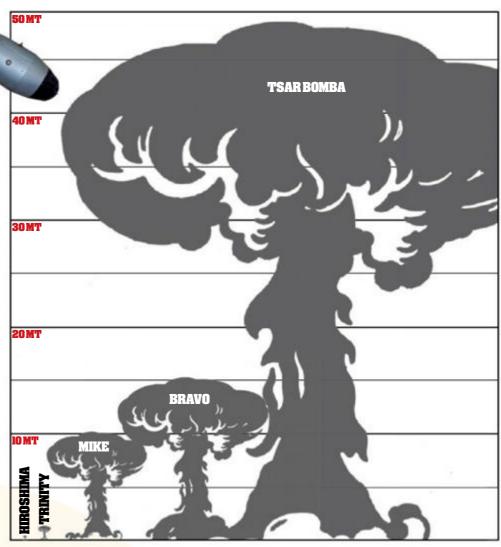
TSAR BOMBA

BY FAR THE BIGGEST NUCLEAR WEAPON ON EARTH TO EVER BE DETONATED

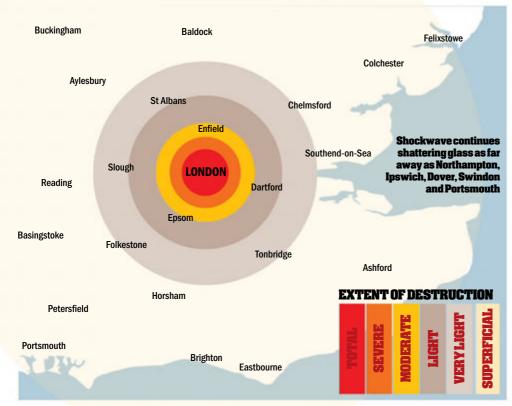
In a particularly deadly period of Cold War tensions, the USSR wanted to flex its military biceps, yet it didn't have the technology to compete with the speed and accuracy of US missiles. Soviet premier Nikita Khrushchev ordered the creation of a nuclear bomb that had four times the yield of its American opposite – a real whopper at 57 megatons.

On 30 October 1961, an explosion rocked the uninhabited Russian archipelago of Novaya Zemlya, north of the Arctic Circle. Delivered by a modified Russian 'Bear' bomber and filmed by a six-man camera crew, this was the biggest manmade device to ever have been detonated on the planet: the Tsar Bomba, or 'Emperor Bomb' blast was equivalent of all the combined munitions used in World War II - multiplied by ten, or the power of around 1,500 times the nuclear explosions that devastated Hiroshima and Nagasaki. This was a three-stage bomb that detonated a primary fission bomb to compress a secondary nuclear device, which then used the combined energy to detonate a larger fusion explosion that accounted for around 97 per cent of the blast.

A crucial stage had been changed so that not only was the blast smaller and safer than the 100-megaton yield Khruschev first had in mind, but relatively clean for a nuclear explosion.



COMPARATIVE DESTRUCTION OF LONDON BY TSAR BOMBA



The bombing crew barely had time to clear the area before a fireball eight kilometres (five miles) in diameter erupted from the drop zone. The mushroom cloud that emerged from the explosion passed right through the stratosphere, and at 64 kilometres (40 miles) high, was more than seven-times the height of Mount Everest - that's nearly four-times taller than the 15-megaton US Castle Bravo bomb detonated in 1954. Heat from the fireball would have caused third-degree burns to those up to 100 kilometres (62 miles) away, the shockwaves broke windows 900 kilometres (560 miles) away and if it weren't for the fact that the bomb was detonated while it was in the air, seismic shockwaves would have equalled an earthquake of 7.1 on the Richter scale.

Ironically, the magnitude of the Tsar Bomba explosion had the effect of unsettling both the American and Soviet governments, resulting in a treaty signed by both Premier Khrushchev and President Kennedy to ban bomb tests in the air, underwater and outer space.

TSAR BOMBA

WEAPON TYPE: THERMONUCLEAR BOMB YIELD: 57 MEGATONS (TNT EQUIVALENT)

WEIGHT: 27,000KG (60,000LB)

LENGTH: 8M (26FT)

STATUS: ONE MADE, TESTED



Terrified of the anticipated march of the Soviet army across the German border, the US took it upon itself to stop Khrushchev in his tracks before he had a chance to get a foothold in Western Europe. Nuclear devices being the most advanced and powerful weapons available, the 'Atomic Annies', enormous cannons that could fire nuclear ordinance over a long range, seemed an obvious choice. The US had three of these, but they were difficult to conceal and would make

obvious targets if war broke out. So the army plumped for something more covert: a nuclear weapon that could be deployed by just three trained soldiers or mounted on a Jeep: the M28 and M29 Davy Crockett weapon system.

This was a tactical nuclear recoil-less gun that resembled a rocket launcher, but which fired a deadly nuclear projectile rather than a chemical explosive. The accuracy was very poor over long range and often missed the target by hundreds of metres, but that didn't matter much, because the warhead had a yield of around 20 tons of TNT, for a blast radius of up to 2.7 kilometres (1.7 miles). Anyone who survived within 400 metres (1,312 feet) would die of radiation sickness in days, and anyone within 150 metres (492 feet) of the blast would be bathed in an instantly deadly blast of radiation. Around 2,100 were made from 1956, tested in the Nevada Test Site and finally deactivated in 1967.

DAVY CROCKETT

M-388 NUCLEAR FISSION DEVICE 2.7KM (1.7 MILES) **20 TONNES OF THT** 10,000 REM (DEADLY)

DEACTIVATED

FLYING SAUCER

AS IT TURNS OUT, IT WAS ONLY THE LITTLE GREEN MEN THAT WEREN'T REAL

FLYING SAUCER

483KM/H (300MPH) 56KM/H (35MPH) 3,048M (10,000FT) 1M (3FT) 1,600KM (995 MILÉS) 127KM (79 MILES) CANCELLED (1961)

Amid the B-movie fears of an alien invasion that led to public reports of saucer-shaped spacecraft flying over the United States, someone decided maybe these things were real and some newfangled

Russian technology was responsible. If the Russians had flying saucers, then America had better hurry up and develop its own. That person was maverick aircraft designer John

Carver Meadows Frost and the Avro Canada VZ-9 Avrocar was his brainchild, developed for the US military while working for Canadian company Avro Aircraft Ltd.

HEIGHT-OF-BURST DIAL

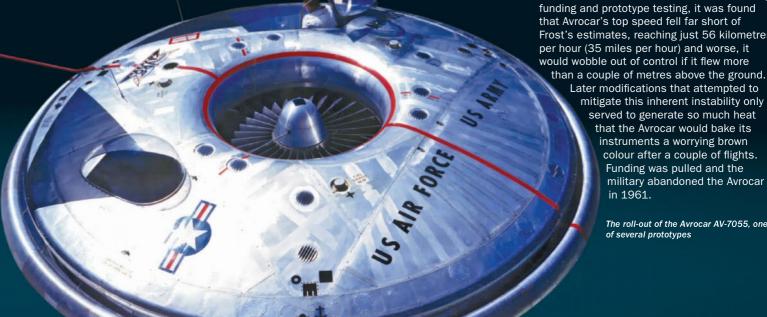
The VZ-9 Avrocar was a vertical take-off and landing (VTOL) aircraft developed under similar principles as the famous Harrier Jump Jet. It was disc-shaped with a single, powerful turborotor and intake in the centre that blew exhaust out along the rim. It was originally intended as a supersonic fighter aircraft for the US Air Force, and then as a 'flying Jeep' for the US Army. Frost estimated that his concept could achieve a speed and altitude that could easily outstrip any USAF craft of the day. The reality of what the Avrocar could achieve was somewhat sobering.

After several enthusiastic rounds of military funding and prototype testing, it was found that Avrocar's top speed fell far short of Frost's estimates, reaching just 56 kilometres per hour (35 miles per hour) and worse, it would wobble out of control if it flew more

> Later modifications that attempted to mitigate this inherent instability only served to generate so much heat that the Avrocar would bake its instruments a worrying brown colour after a couple of flights. Funding was pulled and the

military abandoned the Avrocar in 1961.

The roll-out of the Avrocar AV-7055, one of several prototypes



CASPIAN SEA

YEAR: 1966 COUNTRY: SOVIET UNION

THIS BEAST OF A RUSSIAN AIRCRAFT HAD WESTERN MILITARY INTELLIGENCE BAFFLED AND CONCERNED FOR DECADES

Back in the Sixties the Russian 'Ekranoplan' was so secret that even using the word was banned among those in the know. It wasn't until an American spy satellite flew over the Caspian Sea in 1966, taking photographs as it went, that Western eyes got their first glimpse of this very unusual and very large boat plane.

The sheer size of this vehicle alone was enough catch the eye of US intelligence officers analysing the photos: it was nearly 100 metres (328 feet) long from nose to tail, bigger than any seaplane and much bigger than any US aircraft, which led them to name it the 'Caspian Sea Monster'. It also seemed incomplete compared to other aircraft and was a strange shape, with box-like wings and engines that were too far forward on the main body. Conventional aeronautics suggested that this

aircraft – if that's what it was – wouldn't fly well at all, so it had to be something else altogether.

The Caspian Sea Monster was actually a very big Wing In Ground effect (WIG) craft, or Ekranoplan, a kind of boat-plane hybrid that takes advantage of an aerodynamic phenomenon called 'ground-effect'. When the Ekranoplan flies close to the ground or water, it produces a cushion of air that increases its lift by up to 40 per cent, making it much more efficient than any aeroplane.

This could have allowed the Sea Monster to transport armoured vehicles and hundreds of troops at high speeds across the water. Plus, of course, because it flew just a few metres above sea level, it would have been invisible to enemy radar at the time.

The Caspian Sea Monster itself was a research craft that was bigger than any jumbo jet and sunk in 1980 after a pilot error. The Soviets eventually went with a more effective version of the original that was less than half this size. Ultimately, plans were made to deploy up to 120 Ekranoplans in the Nineties but, with the fall of the Iron Curtain, only a few were ever built.

STRANGE CONFIGURATION This is what had the US military

This is what had the US military intelligence baffled when it laid eyes on the Ekranoplan for the first time. By placing the engines forward of the wings, the air is compressed between the water and the wings, creating a cushion for the craft to ride upon.

LUN-CLASS EKRANOPLAN

THOUGH THE SEA MONSTER WAS LONG DEAD IN THE WATER, ITS DESIGN WAS NOT LOST FOREVER

Unrecoverable from the bottom of the Caspian Sea, the failure of the Ekranoplan experiment didn't deter Soviet authorities enough to scrap the program altogether. By 1987 the next boat-plane monstrosity, MD-160, was racing across the waters, testing its formidable engines as well as its mounted missiles. Designated as the Lun-class (meaning Harrier), MD-160 entered service in the Black Sea Navy Fleet, but was retired shortly after the fall of the Soviet Union. After the Cold War thawed, there was no need to make any more Luns, leaving MD-160 the only one of its kind – a forgotten relic of a more threatening and ambitious time.



POWERFUL ENGINES

Ekranoplans needed immense thrust to get them going, supplied by these Dobrynin VD-7 turbojet engines each capable of nearly 30,000 pounds of thrust.

MONSTER

MULTI PURPOSE

The Caspian Sea Monster was a research vessel with no armaments, but the Ekranoplan could fulfil a number of roles, including transportation and a mobile field hospital. The Lun-class Ekranoplan could house two cannons in a tail turret, as well as six anti-ship missiles.

IS IT A BOAT? IS IT A PLANE?

A boat plane is an aircraft that can use water as a runway, but an Ekranoplan is confined to water yet flies just above it. It caused problems for Russian military classification at the time, as it was designated a marine vessel and part of the naval fleet, yet it was piloted by air force test pilots.

"THE RUSSIAN 'EKRANOPLAN' WAS SO SECRET THAT EVEN USING THE WORD WAS BANNED AMONG THOSE IN THE KNOW"

CASPIAN SEA MONSTER

LENGTH: 92M (301FT)
WINGSPAN: 37.6M (123FT)
RANGE: 1,500KM (932 MILES)
WATER DISPLACEMENT: 544 TONNES
TOP SPEED: 500KM/H (311MPH)
STATUS: SEVERAL BUILT (MOTHBALLED)

At the Cold War peak in the Eighties, the deployment of weapons and defence systems from space (or at least, extremely high altitude) became the new playthings for both Communist and Western governments. On the US side of the Atlantic, president Ronald Reagan's opposition to the doctrine of mutually assured destruction meant that the US military was investing time into researching

the means of defending America against a nuclear strike, rather than the weapons required for a retaliatory attack. Cue the Homing Overlay Experiment (HOE).

In 1984, the US Army launched two missiles at each other from either side of the Pacific. One was launched from California with a dummy warhead and a trajectory that would take it 7,242 kilometres (4,500 miles) away to a spot near Kwajalein Atoll. The army waited for the missile to pop up on Kwajalein's radar before launching their experimental counter-measure to intercept it. This was a kinetic weapon that looked much like another missile, until it approached the nuclear dummy outside Earth's atmosphere at more than 185 kilometres (114 miles) altitude. Here, it unfurled a huge, ribbed aluminium net to increase its lethal radius and made directly for the dummy, striking it at such speed that both were practically vaporised. This fourth test was the first to be considered a success and was likened to shooting a bullet out of the air in mid-flight with another bullet.

This was the first non-nuclear missile defence technology: prior to HOE, the only means any country had of defending against a nuclear strike was to detonate another warhead in the air to destroy everything in its blast radius. Obviously, the subsequent radioactive fallout from this method could have had dire consequences for the world. While HOE itself was, thankfully, never needed, the force-of-impact technology it pioneered has been passed down to today's US missile defence systems.

TARGETING

AN ANTI-NUKE WEAPON CONSIDERED TO BE LIKE 'HITTING A BULLET WITH A BULLET'

Navigation and targeting systems were comprised of a computer and a long-wave infrared optical sensor package to detect the heat signature of its target. It took three tests to calibrate the HOE interceptor before it made a successful strike.

4,572 M (15,000FT) PER SECOND IGE: 7,242 KM (4,500 MI) RADIAL NET

21.5M (70.6 FT) PROTOTYPE BUILT

HOMING OVERLAY EXPERIMENT

HIT TO KILL

The HOE interceptor was armed with nothing more than an aluminium net with 36 ribs and steel fragments that unfurled to expand the radius of the vehicle and increase the odds of hitting its target.

"PRIOR TO HOE, THE ONLY MEANS ANY COUNTRY HAD OF DEFENDING AGAINST A NUCLEAR STRIKE WAS TO DETONATE ANOTHER WARHEAD IN THE AIR"

HEAVYWEIGHT

The kill vehicle alone weighed 1,180kg (2,600lbs) and combined with the kill device (the aluminium net) it made an explosive charge redundant: at its top speed, any target the HOE interceptor struck would be vaporised.

SPEED IS OF THE ESSENCE

A two-stage Minuteman booster drove the HOE interceptor at over two miles per second into its target – a pretty amazing feat, considering its target was moving at a similar speed.

STRATEGIC DEFENSE INITIATIVE

HOW AMERICA TOOK ITS HOMELAND DEFENCES TO THE EDGE OF SPACE

Founded in March 1983 by President Ronald Reagan, this government program was designed to intercept, rather than launch, nuclear strikes. Nicknamed the Star Wars program, it not only produced systems to deal with missile attacks on the US, such as the HOE, but also experimented with laser and X-Ray technology. The program had cost an estimated 30 billion dollars by the time it was abandoned in the early Nineties.

THE BULGARIAN UMBRELLA

YEAR: 1978 COUNTRY: SOVIET UNION

IT MIGHT SOUND LIKE SOMETHING OUT OF A PINK PANTHER FILM, BUT THIS DEADLY COVERT WEAPON WAS NO JOKE

Markov was walking across Waterloo Bridge in London to his workplace at the BBC, when he felt a stinging sensation on his thigh, as if he had been stung by a wasp or pricked with a needle. When he turned to the direction of the sting, he saw a man picking up an umbrella from the floor and quickly crossing the road to catch a taxi on the other side. Markov thought little of it but later, in work, he discovered that not only had the stinging sensation not

subsided, but the area of the sting was swollen and an angry red. He became ill hours later and was admitted to hospital with a high fever. Four days later he died – the cause of death: poisoning by the deadly toxin, ricin.

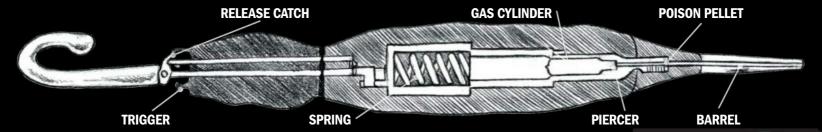
The pellet that delivered the poison was metallic and the size of a pin head, with two tiny holes drilled through it to create a cavity in the shape of a cross. This had been filled with ricin and the entire pellet had then been coated in a sugary substance designed to melt at just

THE BULGARIAN UMBRELLA

WEAPON: WEAPONISED UMBRELLA AMMUNITION: RICIN PELLET CALIBRE: 1.7MM FIRING MODES: SINGLE SHOT STATUS: CLASSIFIED

below body temperature, allowing the ricin to be absorbed into Markov's bloodstream.

Although the weapon itself was never recovered, a clandestine umbrella device was thought to have shot the pellet and naturally, the finger was pointed at the Soviet secret service – the KGB – though the assassin has never been identified.



THUNDER WARRIOR FIGHTER

YEAR: 1951 COUNTRY: USA

THE JET INTERCEPTOR WITH THE COOLEST NAME ON EITHER SIDE OF THE IRON CURTAIN

Getting any conventional aircraft to fly at more than a couple of times the speed of sound was tough in the Fifties, so the Republic XF-103 was a special concept. Designed to intercept Soviet bombers with nuclear-tipped missiles, at altitudes of above 18,000m (60,000ft) and speeds of up to Mach 3 (over 3,500km/h), the Thunderwarrior Fighter had a mock-up built and a prototype planned, but never completed.

ATTACK DOLPHINS

YEAR: 1960 COUNTRY: USA

AND NOW YOU'VE HEARD IT ALL..

Yoking their deep-diving ability and sonar, it was discovered that dolphins could be worked with in open water and to help the US Navy track lost divers, then guide them back to safety. Not only that, they could be used to locate enemy underwater mines and more sinister tasks still: to kill, lay mines and even embark on kamikaze missions against enemy submarines. Their potential as a viable part of the US Cold War effort was recognised, so the Navy Marine Mammal Program (NMMP) was classified in 1967. The program is still alive and swimming today.





DISCOVER THE PAST!

www.historyanswers.co.uk



ON SALE NOW

WWII's Axis of Evil • Da Vinci's Demons • Boudica vs Rome











BUY YOUR ISSUE TODAY

Print edition available at www.imagineshop.co.uk Digital edition available at www.greatdigitalmags.com

Available on the following platforms

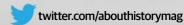


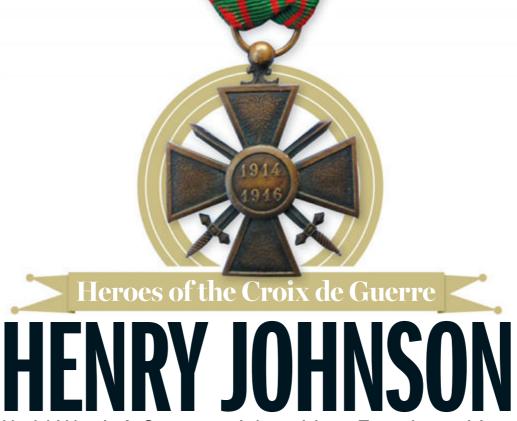












World War I: A German night raid on French positions is repelled by a fearless US 'Hellfighter'

WORDS JACK GRIFFITHS

enry Lincoln Johnson is the definition of under-appreciated. One of the heroes of World War I, his outstanding act of bravery and dedication to a fellow soldier is really quite remarkable.

In the years prior to his finest hour, Johnson was earning a living as a rail porter at Albany Union Station. Standing at 5ft 4 and weighing 130 pounds, the former chauffeur and coal labourer was by no means a born soldier but he was quick to sign up when President Woodrow Wilson declared war against Germany in 1917. Johnson enlisted at the Marcy Avenue Armory in Brooklyn and was soon sent to Carolina for training, leaving his wife Edna and three children behind.

Johnson was assigned to the 15th New York National Guard Regiment, which was later renamed the 369th Infantry. This was the first African-American regiment of the war and it was here that he would first meet his great friend Needham Roberts.

The early days of military service didn't go smoothly as brawls regularly broke out between black and white troops. When they sailed over to French soil, life didn't get much better as the two privates and their company were slapped with menial tasks such as digging latrines. Being African-American, Johnson and Roberts were subjected to segregation and their Labor Unit was given the worst tasks that their commanders could think of.

When the time finally came for frontline duty, the rest of the US forces reportedly refused to fight alongside the African-American regiments. The company was determined to contribute as much as possible to the war effort so the decision was made to put the 369th, or the 'Black Rattlers', under the operational control of the French Fourth Army, who were short of

FOR VALOUR



The Croix de Guerre rewarded great bravery and courage. Introduced in 1915, it was open to solders, sailors

and airmen from all allied powers. Bronze and silver versions were both available and variations of the decoration were awarded into WWII.

WHY DID HE WIN IT?

For an act of heroism in defending an outpost from a German raid of much greater numbers. Johnson helped save the life of Private Needham Roberts, who was severely wounded.

WHEN WAS HE AWARDED THE CROSS?

c. 1918

WHERE WAS THE BATTLE?

Argonne Forest, Champagne, France

WHEN DID IT TAKE PLACE?

14 May 1918

WHAT WAS THE POPULAR REACTION?

Johnson returned home to a hero's welcome in his hometown of Albany. The US government, however, was less helpful and he was denied a disability pension. He was eventually awarded US honours posthumously.

troops in the fight against the German Empire. A notorious document called 'Secret Information Concerning Black American Troops' was even given to the French to dispel any negative tales they had been told from the other US divisions.

The company was stationed at Outpost 20 in the Argonne Forest in north-eastern France. Johnson and Roberts were given French helmets

and weapons and learned basic French so they could understand their new comrades.

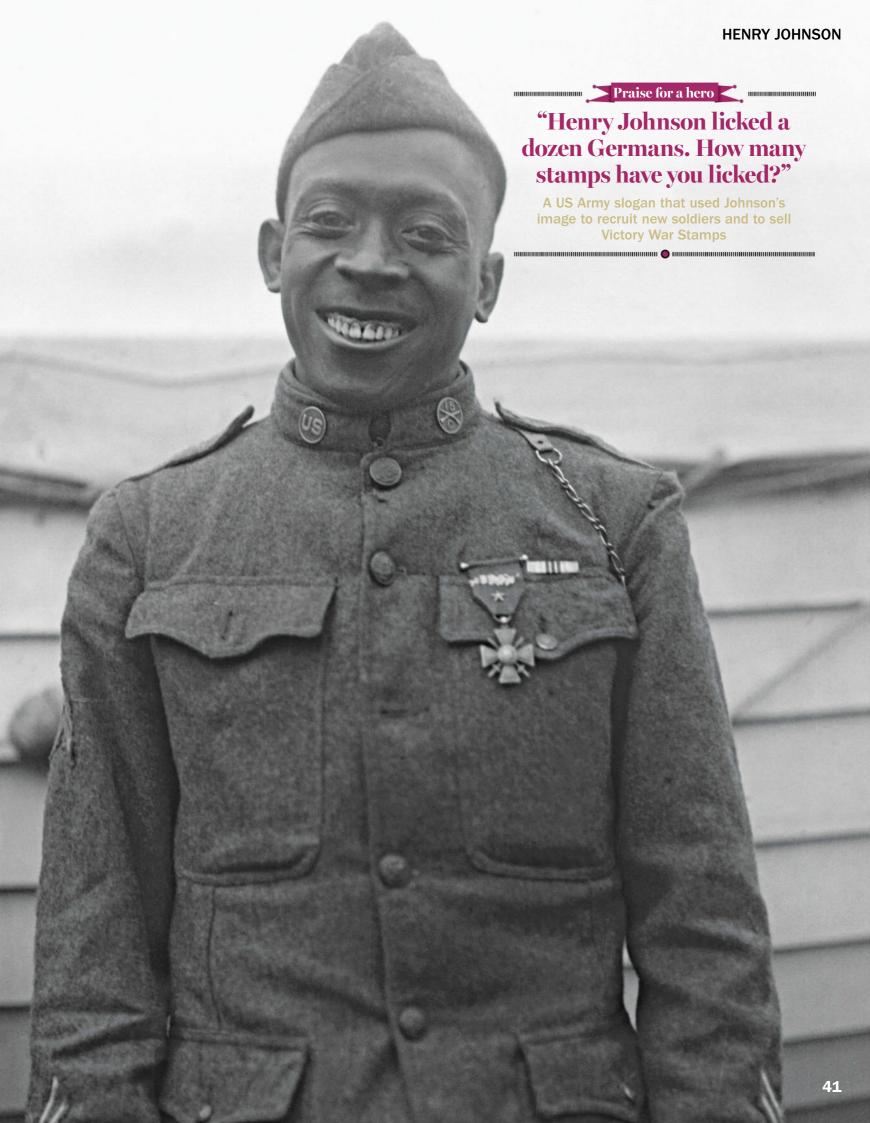
May 1918 saw fresh German offensives into Northern France and it wasn't long until the men were pressed into action. On the night of 14 May, Privates Johnson and Roberts were on the midnight to 4am shift on double sentry duty, when they heard the sound of wire cutters on the camp's perimeter fence. They were then forced to take evasive action as they were shot at by sniper fire. Opening up a box of 30 grenades, the men readied themselves for battle.

While Johnson hurled the projectiles at the oncoming raiding party, Roberts sprinted back towards the main camp for backup. However, after seeing between 20 and 40 men advancing on Johnson, he turned back to help his friend. They returned fire but in no time ferocious hand-to-hand combat had broken out.

Roberts, who had been struck more seriously than Johnson, was unable to fight effectively with wounds to his arm and hip. He still managed to make himself useful by handing grenades to Johnson who threw them over the parapet.

Soon they ran out of projectiles and in the confusion Johnson tried to arm his French rifle with a US cartridge, jamming the mechanism. Drawing his nine-inch double-edged bolo knife from his belt, Johnson fought on despite grenade and shotgun wounds.

In the heat of battle, Johnson noticed Roberts being carried away by the Germans. Determined not to let his good friend become a prisoner of war, he made his way towards him using his broken rifle as a club and even his fists. His dogged defence and total disregard for his own life kept the German soldiers at bay until they heard the distant advance of French and US troops and made a hasty retreat. The skirmish had lasted about an hour and the two men were



Words from a hero

"Each slash meant something, believe me; I wasn't doing exercises, let me tell you"

Henry Johnson

then forced to wait it out until morning broke and reinforcements arrived. Johnson cared for Roberts for hours ensuring that his 17-year-old buddy could fight another day, but his act of gallantry had taken its toll on the weary Albany native and as help reached them, he collapsed absolutely exhausted.

Waking up in the morning light of a French field hospital, Private Johnson learned that he had killed four Germans, including one lieutenant, and had wounded between 10 and 20 more. He had successfully protected the French line but had received a total of 21 wounds from gunshots and grenade blasts. Back on the battlefield, a patrol from 369th Company found that the German's blood trailed back almost to his own lines. This was the carnage that the young American had caused and the name 'Hellfighters' would now stick with the company forever. As for Johnson, he was given the nickname 'Black Death' for his ferocity in battle.

Indebted to their efforts in saving the camp, the French military hierarchy awarded the two men with the Croix de Guerre military decoration. France's highest award for bravery, this was a massive honour to the two privates who were the first Americans to receive the medal and were both promoted to sergeant. Johnson was additionally given a golden palm wreath on his ribbon for 'extraordinary valour'.

After the defeat of the Triple Alliance, the Hellfighters returned home to be greeted by a parade in New York. Johnson rode in an opentop Cadillac, but the parade would be the limit of his rewards. The hero was denied a disability

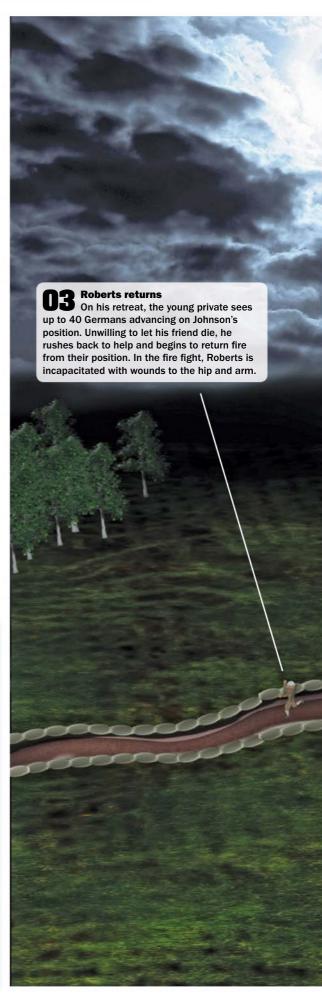
pension and was even refused a Purple Heart, a US military decoration given to those wounded in service.

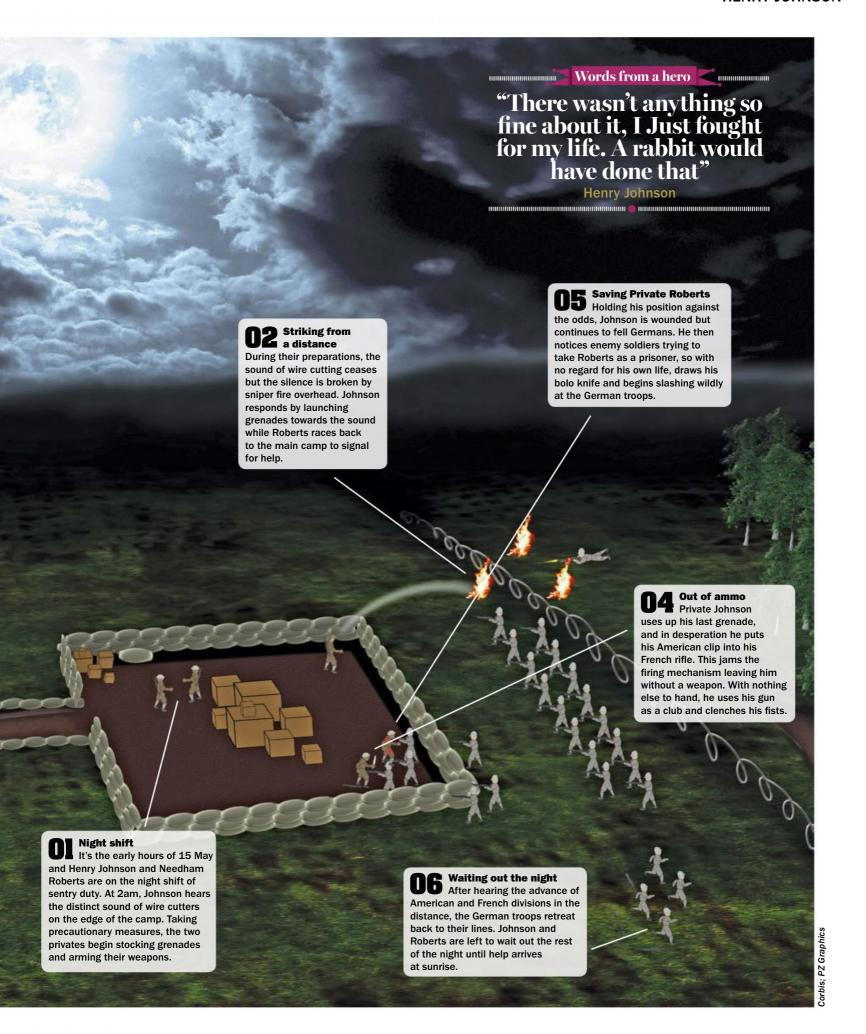
Johnson was given a hero's welcome by the people of Albany, and the Fort Orange Club (a prestigious venue in the area) hosted a tea for his wife, Edna. Pictures of Johnson and Roberts sold in great number and were even used as recruitment tools, as the men lectured the youth on their war experiences.

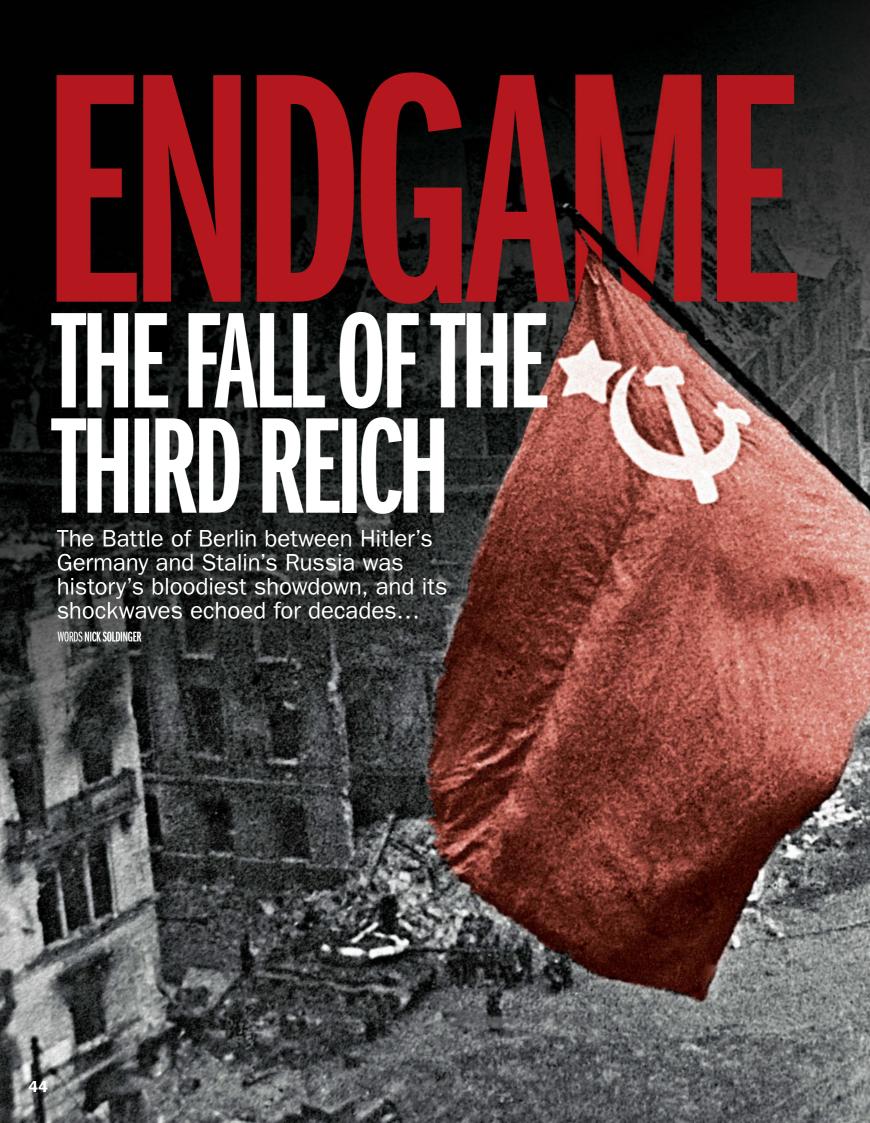
Life was seemingly good for the Johnson family but in private, the great man was struggling. After being denied work back at the Union Station due to his wounds, he found it difficult to get another job. Uneducated and in his early twenties, Johnson, like many of the other returning soldiers, could not overcome the trauma and injury he had suffered in France. The turmoil eventually drove him to hit the bottle and soon his wife and children left him behind. He died penniless in 1929 aged 32.

Herman Johnson, Henry's son, managed to locate his father's grave 63 years later in Arlington National Cemetery. The discovery helped the memory of Johnson gain momentum and soon a movement was raised to award him higher honours. In 1996 he was awarded the Purple Heart and in 2003 the moment came when the World War I hero was given what he had always deserved, the Distinguished Service Cross. There is now even a campaign underway to award him the Medal of Honor, but whether this happens or not, the efforts made by Henry Johnson in the spring of 1918 have finally been appreciated.











ENDGAME

The idea that the Soviets might seize Berlin and bring an end to World War II in Europe had become a distinct possibility by the start of 1945. The success of the Red Army's January offensive had seen it smash through 500 kilometres (300 miles) of German-held territory in just 20 days. By 5 February, its troops began to cross the Oder river, the last great natural barrier before Berlin. Once on the other side, however, and just 60 kilometres (37 miles) from Hitler's capital, they stopped.

The Soviet advance had been so rapid and the fighting so intense, that the successes had left the Red Army short of ammunition and fuel. It would take more than two months of resupply and reinforcement before it was ready for its final push of the war.

The pause in slaughter gave the Nazis time to reorganise, too. Reserve units were cobbled together from whatever troops were left and whichever civilians could be press-ganged into service. Wounded soldiers were ordered from their hospital beds and army clerks sent to combat units, while men as old as 60 and boys as young as 13 were drafted into the newlyformed Volkssturm militias. Those who refused were executed.

In the end, the Nazi high command managed to sweep together about 760,000 troops. Many were sent to join the 9th Army at Seelow Heights, the highlands east of Berlin, to help build elaborate defences there. In the plains before them as these troops worked, the Soviets gathered together an army of 2.5 million men, more than 6,000 tanks and 40,000 artillery pieces. The clock was ticking on what would be the bloodiest showdown in history. By the time Berlin fell, hundreds of thousands of people lay dead.

British prime minister Winston Churchill also wanted to capitalise on this brief pause. He saw it as an opportunity for the West to seize both the initiative and Berlin itself. By late March, the Western Allies had crossed the Rhine, and were themselves just 100 kilometres (60 miles) from the city. "If the Russians take Berlin," Churchill warned US President Franklin D Roosevelt on 1 April, "may



"THE SOVIET ADVANCE HAD BEEN SO RAPID AND THE FIGHTING SO INTENSE, THAT THE SUCCESSES HAD LEFT THE RED ARMY SHORT OF AMMUNITION AND FUEL"





HITLER'S LAST LINE OF DEFENCE

THE BOY FANATICS AND CITIZEN MILITA OF BERLIN'S VOLKSSTURM

Newly mobilised members of check out their weapons

By the end of 1944 the German war machine was running on empty, its manpower almost spent. Hitler ordered all German men aged between 16 and 60 to join Volkssturm units and with the regular army disgraced by defeat overall command was given to Reichsführer-SS Heinrich Himmler, who announced the birth of the "People's Storm" over the radio waves on 18 October while a studio audience sang "Volk ans Gewehr!" - "People to Arms!"

With most adult men already serving in the Wehrmacht, most of the total six million-strong Volkssturm were old men - with 1.4 million physically unfit and suitable only for guard duty. Approximately 600,000 were 16-19 year-old members of the Hitler Youth, with some volunteers as young as 10. Even the women of the Nazi Women's League were drafted in to provide rearechelon support. On 23 March 1945, the women were issued firearms.

Of Berlin's 41.000 defenders, 24.000 of them were Volkssturm with 18,000 of that number part of the 'Clausewitz Levy' mobilised from essential

Volkssturm recruits were rushed through a 48hour training programme covering the use of rifle, Panzerfaust and Panzerschreck anti-tank weapon, and grenades. If the situation warranted it they were also schooled in the use of pistol, submachine gun and landmine.

Units assigned to guard duty were expected to use hunting rifles or weapons taken from the enemy, but even combat units found supplies hard to come by and some were only issued a trench spade by way of self-defence. In Berlin, supplies were so scarce that units were issued with Italian or Danish rifles and only a couple of rounds each. Only single-shot Panzerfaust rocket launchers seemed plentiful.

An order issued 1 December 1944 required recruits provide their own, resulting in a mixture of paramilitary, Hitlerjugend, police and even old First World War uniforms, but many had to make-up with cast offs, captured British fatigues or simply civilian clothes. All insignia had to be removed except Volkssturm rank pips on the collar and the black Volkssturm armband on the upper left sleeve. The lack of a consistent uniform led to many facing summary execution as guerrillas by the Red Army.

Command roles in the Volkssturm were often held by senior members of the Hitler Youth, civilian police and non-combat paramilitary groups such as the motoring association NSKK, the flying club NSFK and military engineering/slave labour force Organisation Todt. The Berlin District Volkssturm was under the direct command of Propaganda Minister Joseph Goebbels who was also Gauleiter, or head, of the regional branch of the Nazi Party.

OF THE 45 MEN. ONLY TEN WERE HITLER YOUTH MEMBERS; THE OTHERS WERE IN THEIR 40S AND 50S. HERR WOLFF, WHOSE SON HAD FALLEN AS A SERGEANT IN THE WAFFEN-WITH THE INSCRIPTION DEUTSCHE WEHRMACHT. I FELT VERY SELF-CONSCIOUS AS THEIR Alfons Heck, aged 17



While many Volkssturm units were as farcical as you'd expect such an ad hoc collection of OAPs and inexperienced ideologues, some of them such as the Siemensstadt Volkssturm Battalion 3/115 fighting in the Eastern suburbs of the city - held out until the surrender. Desertion, though, was high and the Red Army often deliberately targeted Volksstrum-held lines, knowing that they were the weakest link in Berlin's chainmail.

The Hitlerjugend meanwhile - representing a generation that had known only National Socialism - fought with a level of zeal that terrified even battle-hardened soldaten and one Russian account describes a column of 400 Hitlerjugend marching down Kolonnenstrasse toward them as if they were on parade. The stupefied 5th Shock Army paused briefly before opening fire.

Hitlerjungend 'tank-hunting units' armed with Panzerfausts terrorised the Soviet advance through the Wilmersdorf District, while a counterattack launched from the Ruhleben U-Bahn saw 1,000 German troops reinforced by 2,000 Hitlerjugend - many completely unarmed actually drove back the advance of the 55 Guards Tank Brigade.

Perhaps the most infamous tribute to their tragic fanaticism was on 23 April, when Volkssturm battalions made up entirely of Hitler Youth were tasked to hold the Pichelsdorf bridges across the Havel River for a relief army that never arrived - one of the many phantoms commanded by Germany's ailing despot as he raged in his bunker. 5,000 boys in adult uniforms and oversized helmets fought for five days over the Havel against the Red Army advance, with 4,500 of them killed or wounded.

KEY PLAYERS THOUSANDS DIED AS BERLIN FELL, MANY BELIEVING THEIR CAUSE WAS A NOBLE ONE. THESE ARE THE MEN THEY FOLLOWED



GEORGY ZHUKOV

The key Soviet commander. having driven the

Germans from Moscow, defeated them at Stalingrad and routed them at Kursk, Zhukov was known as 'the man who never lost a battle'. While he did capture Berlin, his tactics cost many casualties.



GOTTHARD HEINRICI **NAZI GERMANY** 1886-1971 Considered the best defensive tactician in the

Wehrmacht, Heinrici managed to delay the Soviet advance at Seelow despite overwhelming odds. A non-Nazi, he also refused to carry out Hitler's more suicidal orders, saving many of his men.



IVAN KONEV

As commander Ukrainian Front. Konev was

encouraged by Stalin - who admired his ruthlessness - to 'race' Zhukov to Berlin. Attacking from the south, his forces were also the first to link up with advancing US troops.



HELMUTH WEIDLING **NAZI GERMANY** 1891-1955 On 22 April, the by-now deranged

Hitler ordered

Weidling's execution. The next day he appointed him commander of Berlin's defence with orders to fight to the death. On learning of his promotion, Weidling reportedly said: "I'd rather have been shot."

this not lead to grave and formidable difficulties in the future?"

Churchill, as it would transpire, was very much focused on the future and what a postwar map of Europe should look like. He urged the Americans to take the city. The US high command, though, under General Dwight D Eisenhower, wasn't keen. The mauling his troops had taken during the Battle of the Bulge that winter, when Hitler had launched his final counter-offensive in the west, had left him wary. When he asked what casualties he could expect if he attacked Berlin, one of his generals told him 100,000. It was an unthinkable figure. Had it transpired, it would have constituted a fifth of all US casualties for the entire war. Eisenhower instead deferred to Stalin, who told him that Berlin was strategically unimportant and that his efforts would be better focused on preventing the Nazis from regrouping in the south. It was advice that Eisenhower was quite happy to take.

Yet neither Stalin nor Churchill was being transparent. It had already been agreed at February's Yalta Conference that when the Nazi regime toppled, the Allies would divvy up Berlin between them. So why then did it matter to Churchill who took the city first? Similarly, if Berlin was strategically unimportant, why was Stalin so keen for the USSR to single-handedly suffer such high casualties capturing it? After all, he'd spent much of the war prior to D-Day haranguing his allies for not dying enough while Russia was being bled white. Surely now was the time for them to make up for that in this common crusade against fascism? Militarily it would have made more sense, too - a ready-made pincer movement that would save one side from having to surround the city on its own. The answer to these questions lies in what would appear to be a giant game of chess being played out between Churchill and Stalin, only with real-life pawns and potentially catastrophic consequences.

At the start of April, Churchill, fixing his gaze well beyond Hitler's imminent demise, ordered the drafting of Operation Unthinkable. Documents declassified in 1998 reveal that a month before the end of hostilities in Europe, Churchill was plotting a war against the Soviet Union. In his secret plan, 47 British and US divisions were to launch a surprise attack against the Soviets on 1 July 1945. Moreover, this offensive was to be supported by 10 German divisions with the intent not merely of driving the Soviets out of Eastern Europe, but of invading the USSR itself. According to official documents, the aim was to seize "such vast areas of Metropolitan Russia that the war-making capacity of that country would be [rendered] impossible."

Did Stalin know what Churchill was up to? Almost certainly. By 1945, the Soviets had so successfully infiltrated British intelligence that notorious double agents like Kim Philby and Guy Burgess had been feeding the Kremlin secrets for years. It also explains Stalin's desire to flood Berlin and its surrounding area with his troops. Control Berlin, as Karl Marx once pointed out, and you control Europe. And if you're Joseph Stalin, you also put an awful lot of territory between your borders and any newlydrawn battle lines.

I ZHUKOV LAUNCHES SEELOW HEIGHTS OFFENSIVE

16 APRIL, 3AM
After more than two months of intensive preparation, the 1st Belorussian Front under Marshal Zhukov attacks the well-fortified German position at Seelow Heights. The objective is taken after three days of fierce fighting. It proves to be Germany's last significant position of organised resistance.

2 ZHUKOV REACHES THE OUTSKIRTS OF BERLIN

20 APRIL, 8PM
After having raced 60km
(37mi) from Seelow to the
eastern edge of Berlin,
Zhukov's 1st Belorussian
Front announces its arrival
with an artillery barrage
that continues until the
city falls two weeks later.

3 THE BATTLE OF HALBE

24 APRIL, 10AM
The 9th Army, escaping
from Marshal Konev's 1st
Ukrainian Front, is pinned
down by SS troops after
being mistaken for a Soviet
column. The hold-up allows
Konev to envelop them. Over
the next few days, the 9th
Army is annihilated.

4 BERLIN ENCIRCLED

24 APRIL, 6PM
Forward elements of Marshal
Konev's 1st Ukrainian
Front link up with men from
Zhukov's 1st Belorussian
Front, to the west of Berlin.
With Marshal Rokossovsky's
2nd Belorussian Front
pushing down on it from the
north, the Nazi capital finds
itself completely surrounded.

5 SOVIET AND US TROOPS MEET

25 APRIL, 4PM
Elements of Konev's 1st
Ukrainian Front make
contact with men from the
US 69th Infantry Division at
Torgau on the Elbe, 135km
southwest of Berlin.

6 HITLER'S BUNKER IS SHELLED

APRIL 27TH, 10AM

Soviet artillerymen on Schlesingerstrasse are ordered to fire on The Reichstag, they comply even though Berlin's so engulfed by flames they can't see it. After hitting their own troops, they switch targets to the Reich Chancellery where Hitler's bunker is.





7 THE CAPTURE OF TEMPELHOF AIRFIELD APRIL 28TH, 11AM

With much of Berlin's southern suburbs now in Soviet hands, Tempelhof airport is seized. With the city completely surrounded, Hitler's last exit route has been closed off. He now knows his fate lies with either death or capture in Berlin.



8 THE CAPTURE OF THE MOLTKE BRIDGE 28 APRIL, 5PM

This last intact crossing over the River Spree was the gateway into central Berlin. About 5,000 German troops barricaded it at both ends and wired it up for demolition. Soviet forces assault the bridge at dusk and capture it.

9 THE CAPTURE OF THE REICHSTAG BUILDING 30 APRIL, 10.40PM

After two days of fighting, Soviet forces finally place their flag atop the Reichstag in time for May Day as ordered by Stalin. By 1 May, the Reichstag is in Soviet hands, and news of Hitler's suicide prompts the German surrender.

10 KROLL OPERA HOUSE IS CLEARED APRIL 30TH, 11.30AM

Soviet infantrymen just 800 metres from The Reichstag are attacked from the rear by SS die-hards in the Kroll Opera House. An assault is launched and the building is eventually taken after several hours of bitter hand-to-hand fighting.





ENDGAME

Whatever the truth, there's little doubt that Roosevelt's sudden death from a stroke on 12 April prompted Stalin to finally attack. In Roosevelt he'd had an ally he could trust. His replacement Harry S Truman offered no such assurances and, rather than wait to be stabbed in the back by those who'd soon be his enemy, Stalin acted decisively. The battle for Berlin began four days later.

In the early hours of 16 April, Soviet propaganda officers announced in German over loud speakers that the assault on Seelow was imminent. The message that drifted across no man's land was designed to terrorise the Germans waiting there into putting their hands up. But for troops in those trenches and dugouts, surrender was not an option. The SS men who held guns to their backs made sure

Shortly after this, at 3am, 9,000 guns smashed half a million artillery shells into the German line. The bombardment lasted 35 minutes. When it ended, there was a chilling silence. Then the earth began to shake as 3,000 tanks rattled and clanged their way towards the German position, among them tens of thousands of Soviet infantrymen.

The Russians expected to take Seelow Heights within hours, but its German commander General Gotthard Heinrici, had prepared well. Anticipating the bombardment, he'd pulled his troops back for its duration. Casualties had been minimal and they now raced back to their positions. Prior to the assault, he'd also ordered engineers to open a dam on the Oder river, flooding the land the Soviets now struggled to cross as anti-tank fire thundered down on them. The Soviet commander, Marshal Georgy Zhukov, had also made a critical error. Hoping to dazzle the German defenders, he'd lit his men's advance with 143 high-powered searchlights. His bombardment, however, had created an enormous wall of smoke that their beams couldn't penetrate and instead bounced back from, both blinding his own troops and silhouetting them in the glare. The Germans couldn't have hoped for better targets to aim at. By dawn the Soviet advance had stalled.

It would take Zhukov three days to dislodge Heinrici's defenders, and even then only after his great rival Marshal Ivan Konev began to outflank the Germans from the south. The defensive position at Seelow fell on 19 April.



COUNTDOWN TO THE END A BLOW-BY-BLOW ACCOUNT OF HOW THE RED ARMY DRAGGED HITLER'S THIRD REICH TO THE EXECUTION BLOCK AND FINALLY KILLED IT OFF

3AM

THE BATTLE OF **BERLIN BEGINS**

The Red Army begins its assault on the German army's last major defensive line at Seelow Heights, 60km west of Berlin. It falls just three days later.

8PM

BOMBARDMENT OF BERLIN BEGINS

It's Hitler's 56th birthday. He emerges from the Führerbunker for the last time to award medals to boy soldiers. On the same evening, the Soviet bombardment begins.

11AM

FIRST COUNTER-ATTACK ORDERED

Hitler orders a rag-tag force under General Steiner to repel the encircling Soviets. When it fails to do so, Hitler announces that he's going to kill himself.

2PM

GENERAL WEIDLING **APPOINTED**

With the Soviets closing in on all sides. Hitler appoints Artillery General **Helmuth Weidling** commander of the Berlin Defence Area.

10AM

RETREATING 9TH ARMY **SURROUNDED**

General Busse's 9th Army, heading to Berlin after withdrawing from Seelow Heights, is encircled at Halbe. Trapped, the Soviets set about destroying it.

9PM

SECOND COUNTER-ATTACK ORDERED

General Wenck's 12th Army is pulled off the line facing US troops and sent to relieve the encircled 9th Army. It proves an impossible task.



26 APRIL DAWN

THE ONSLAUGHT ARRIVES

About half a million Soviet troops swarm into Berlin from all directions. Fierce street fighting starts to see almost every building damaged or destroyed.



28 APRII 3PM

HIMMLER DISCUSSES SURRENDER

Hitler learns that his most trusted ally Himmler, who left Berlin eight days earlier, has approached the Western Allies to discuss peace terms. Hitler declares him a traitor.

29 APRIL 5PM

MOLTKE BRIDGE IS CAPTURED

Demolition charges fail to properly destroy the last bridge over the Spree. It falls into Soviet hands, taking access to central Berlin with it.

30 APRIL 10AM

WEIDLING'S LAST REPORT

Weidling informs Hitler that the Soviets are just metres from his bunker, that the Reichstag is under fire and the Nazi ammunition is very nearly exhausted.

<mark>30 APRIL</mark> 3.30PM

HITLER'S SUICIDE

Hitler kills himself in the Führerbunker by simultaneously biting into a deadly cyanide capsule and shooting himself in the head. His remains are later cremated by bodyguards. About 12,000 of its defenders had been killed and the rest now fled. It had cost the Soviets more than double that and nearly 750 tanks, but there was now nothing left between them and Stalin's ultimate prize – Berlin.

Zhukov's 1st Belorussian Front raced towards the city from the east, and by 20 April was on its outskirts. Zhukov marked what was to be Hitler's final birthday by launching a huge artillery barrage against the city. Cowering in his Führerbunker, Der Fuhrer, by now deranged and deluded, ranted wide-eyed about how the German people had betrayed him. If he was going to die, he shrieked, then they would die with him. The war was lost, and Hitler knew it, but he'd make Berlin's three million inhabitants suffer terribly. The following day Zhukov's ground troops began their assault.

To the south, meanwhile, Konev's 1st Ukrainian Front was also making rapid progress. It'd broken into open country and was chasing what was left of the German 9th Army. By now, these German troops, who'd fought so bravely at Seelow, were slowly being encircled. They fled towards Berlin where there was still an opening in the front but, on 24 April, were halted at the

town of Halbe. Not by Russians, however, but by SS troops holding the line there.

Mistaking the approaching Germans for a Soviet column, the SS opened up on them. The men from the 9th scurried for cover, and by the time the SS realised their mistake, Konev's troops were swarming all over them, assaulting the SS defences. The 9th were trapped between the two sides and when fighting eased six days later, 60,000 Germans lay dead.

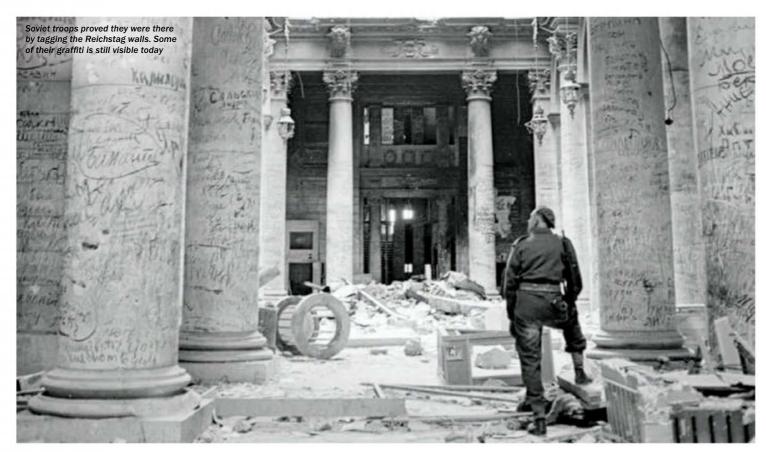
The rest of the 1st Ukrainian Front swept forward, driving relentlessly towards Berlin. By nightfall it had made contact with Zhukov's troops west of the capital. With the 2nd Belorussian Front hemming the city in from the north, Berlin was now surrounded.

Hitler attempted a counter-offensive. He ordered that the German 12th Army facing US troops in the west to smash through the Russian lines, link with the beleaguered 9th and drive northward to Berlin. It was a wild gamble that had no chance of success. Halted 32 kilometres (20 miles) from the city, the 12th was soon sent back by overwhelming firepower.

The Russians now tightened the noose, and the siege that would engulf the city for the next



"THE SIEGE THAT WOULD ENGULF THE CITY FOR THE NEXT TWO WEEKS REDUCED THE ONCE SPLENDID CAPITAL TO THE **INNER CIRCLE OF HELL"** ravaged Europe for six long years could finally be brought to a close. With nobody to bury the dead, corpses crowded the streets. About 400,000 people died during fighting in the city alone



two weeks reduced the once splendid capital to the inner circle of hell. The air became poisoned with the stench of burning buildings and rotting flesh, the streets busy with twisted corpses, the cellars and subways filled with untreated wounded. As the food ran out and the water supply dwindled, those in uniform ran amok. The civilian population was terrorised by both the Russians - who hunted in packs for the city's females, raping whoever they found regardless of age or medical condition - and those supposedly defending them. By now the mask of respectability had slipped from the faces of those who wore the swastika, the Death's Head or SS lightning bolt badges. The slavering faces of the monsters beneath were revealed as they roamed the city in gangs murdering anyone they deemed cowardly or defeatist. The corpses of old men and children alike swung creaking from the city's scorched lampposts and trees.

A doomed last stand was prepared. General Helmuth Weidling, the man to whom Hitler had given the impossible task of defending the Nazi capital, established a defensive perimeter around the city centre. His 85,000-strong force, made up of literally the last men (and boys) standing now, faced an onslaught from 500,000 Soviet troops.

In the early hours of 26 April, the final battle began. The streets quaked and crumbled as Soviet armour rumbled through them, while artillery and aircraft rained down fire from above. Every street was contested by infantry, with much of the fighting conducted house-to-house and hand-to-hand.

By 28 April, Tempelhof airport was in Soviet hands. There was now no way out, and the German lines were collapsing fast. The following evening, Soviet troops captured the Moltke Bridge over the River Spree, giving them direct access to the Nazi heart. Within hours they'd captured Gestapo Headquarters. They were now a mere kilometre from the Reichstag and just 700 metres from Hitler's bunker.

Weidling delivered the news to Hitler on the morning of 30 April, also informing him that his garrison only had enough ammunition to last 24 hours. He begged Der Führer to allow him to attempt a breakout, but there was to be no escape. Hitler dismissed Weidling's request, and later that afternoon blew his own brains out. Whether or not this news would have persuaded the die-hard Nazis defending the Reichstag to surrender is doubtful. What isn't, though, is that many of the men the Russians exterminated as they fought their way room by room, floor by floor, to the top of the building weren't actually German.

The voices the Russians heard echoing along the burning corridors, in smoke-choked offices and even in the grand auditorium were French, Norwegian, Danish, Dutch and Latvian – members of the SS's various foreign legions, dying in the German capital while fighting for their twisted ideology. By 10.40pm that night, their own flag, the swastika, had been taken down from the roof of the Reichstag and replaced with the red flag of Soviet communism. The symbol of one defunct political ideology replaced by that of what would eventually be another. The Battle of Berlin may have helped end World War II, but it also marked the start of a new global conflict, one that would last for the next 45 years and stretch from Korea to Cuba, from Vietnam to Afghanistan. For it was in the rubble of the Reichstag, that the Cold War was born.



EXCLUSIVE OFFER FOR HISTORY OF WAR READERS



Try Command Comics for only £101*









- Get 3 months (26 issues) of Commando Comics for only £10, saving £42!
- No obligation to continue reading
- Continue and pay just 96p per issue (saving 52% on the shop price)
- Every copy delivered for free directly to your HQ!
- Never miss an issue!





CMHOW

Print and complete coupon. Send to:

Commando Comics, DC Thomson Shop, PO Box 766, Haywards Heath RH16 9GF

YES Please start my print subscription to Commando Comics with 26 issues for £10 (UK only) or £16 (overseas). I understand that if I am not 100% satisfied, I can cancel my subscription at any point and pay no more money. If I like what I see, my subscription will automatically continue at a discount rate of £25 every 3 months or £37.50 (overseas).

I would like to prepay by debit/credit card or cheque for I year at £120 (UK) or £160 (overseas).

DC Thomson & Co Ltd., 2 Albert Square, Dundee DDI 9QJ.

INSTRUCTIONS TO YOUR BANK/BUILDING SOCIETY TO PAY BY DIRECT DEBIT

DIRECT

Name and full postal address of your Bank or Building Society

Originator's Identification Number

3 8 5 5 2

To the Manager	Bank/Building Socie	Bank/Building Society		
Address				
	Postcode			

Instruction to your Bank or Building Society

Signature(s)

Date

Please pay DC Thomson & Co Ltd Direct debit from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with DC Thomson & Co Ltd and if so, details will be passed electronically to my Bank/Building society.

Name(s) of A/c Holder(s)	

FOR DCTHOMSON & CO LTD OFFICIAL USE ONLY This is not part of the instruction to your Bank or Building society.

Bank/	Build	ling	Acco	unt	No	
			8			
Branc	h So	rt C	ode			
	-1	1		1	9	
Bank an						

*3 months for only £10 offer is a short-term deal by Direct Debit with no obligation to continue. If you do not cancel, the subscription will automatically carry on at £25 (UK) or £37.50 (overseas) every three months thereafter. Additional payment options available on pre-paid terms. Visit our website or call 0800 318 846 (Mon-Fri 8am-6pm. Sat 9am-5pm). Overseas callers, please dial $\pm 44 \pm 1382 \pm$



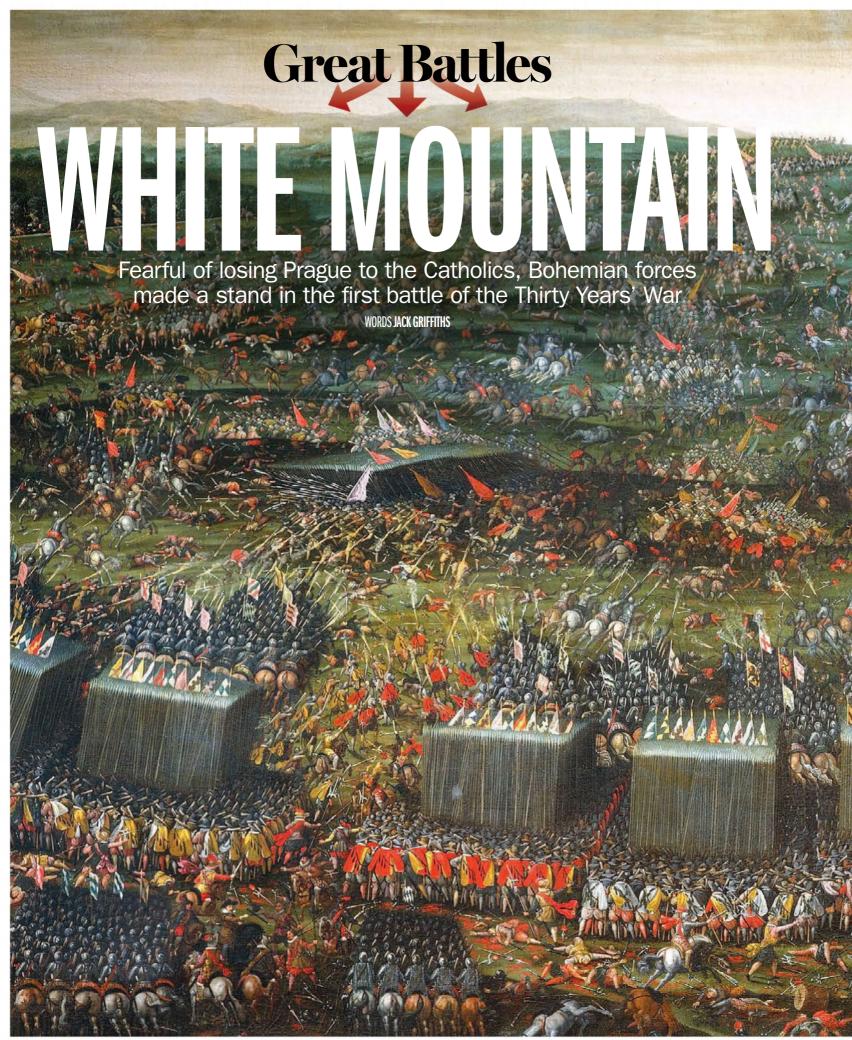
Visit www.commandocomics.com and click 'subscribe'. Please quote CMHOW.

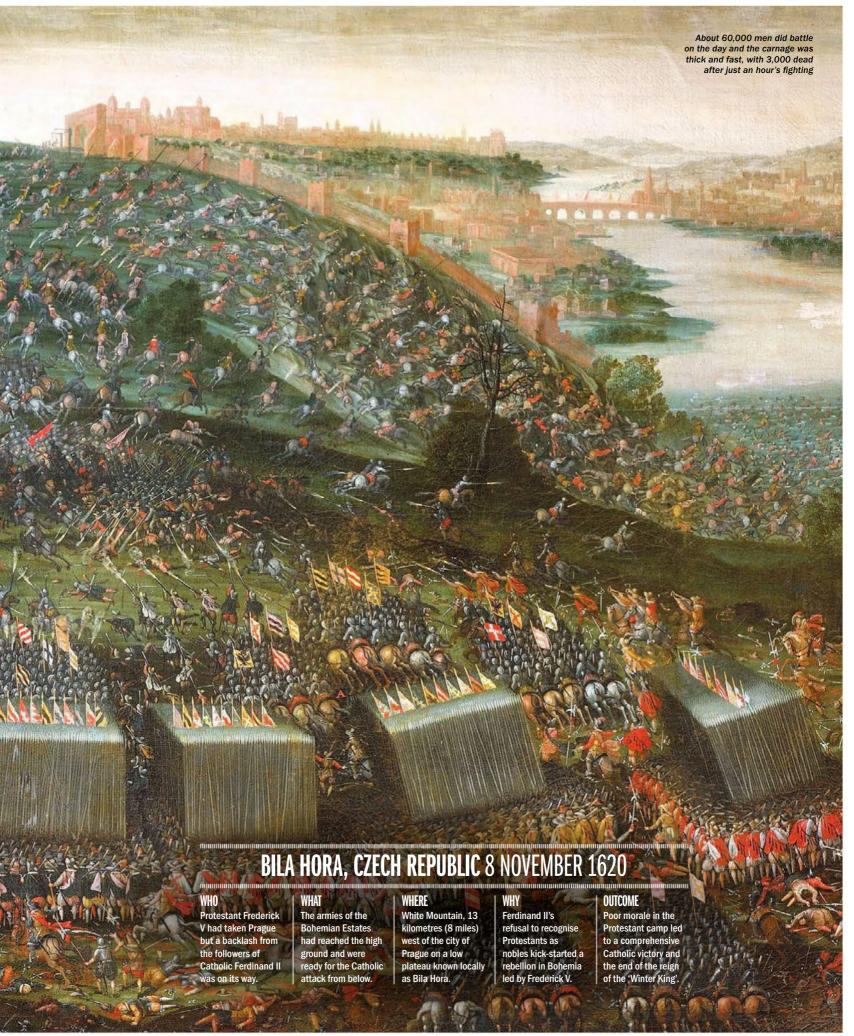












In the early years of the 17th Century, the Holy Roman Empire was a true European powerhouse. It dominated much of Europe and large swathes of the New World, and on its throne sat the head of the Royal House of Habsburg, or Holy Roman Emperor, who was one of the most powerful men on the planet.

One event that had the potential to unsettle the monarchy was the reformation that had begun under the teachings of Martin Luther in the early 16th Century. The Peace of Augsburg was passed in 1555 to quell the discontent and make the legal division of Christendom permanent, but tensions soon began to rise once more.

One area that contained particularly riled Protestants was Bohemia, whose monarch Ferdinand II was an absolutist leader and a staunch Catholic who refused to recognise Protestants as a part of nobility. In response, the aristocrats pointed to the Majestat – a document of law that formally acknowledged the existence of non-Catholic denominations. What followed was a series of secret meetings that resulted in the Second Defenestration of Prague, when two Catholic regents were thrown out of the third-floor window of a castle tower. This was the beginning of a two-year Bohemian Revolt and the initiation of the Thirty Years' War.

After a power struggle, Ferdinand II was removed from the throne in 1619 and Frederick V became the new king of Bohemia. This would become known as the Bohemian Phase of the Thirty Years' War, as the Bohemian states invaded Moravia and reached the gates of Vienna in June 1619. Frederick was the nephew of the English monarch James I and it was hoped he would be able to use this bloodline to gather economic and military support from abroad. Unfortunately for the king and his followers, this was not to be the case.

Even the Protestant Evangelical Union was unwilling to help Frederick and declared neutrality by signing the Treaty of Ulm. After a year and defeat in Lower Austria, the revolt began to lose momentum and the return of Ferdinand and a Catholic backlash was due.

Holy Roman Emperor Matthias II died in March 1619, making Ferdinand the new leader of the Habsburgs. The new emperor now had a huge amount of troops that he could call on for his vengeful assault on Frederick's Protestant estates. He also managed to convince Saxony to close its borders to Bohemia despite Saxony being a Protestant state. In short, the Catholic League had returned.

Frederick, seated on his throne in Prague, was uneasy at the stories of a 30,000-strong Catholic army on its way to reclaim the city. Determined to keep hold of the city, he sent his army 13 kilometres (8 miles) west of Prague to White Mountain, a low plateau known locally as Bila Hora. It would be here that the Protestants would take their stand in the holy war against the oncoming Catholics.

A winter war

In the depths of European winter, Frederick was initially confident that war could be averted until the spring. His sureness of peace, however, was unfounded and messengers returned to his court to confirm that the Catholic Habsburgs were ready and waiting for battle. Luckily, he had already assembled his men and ordered them to travel to White Mountain so that they would hold the advantage of the high ground.

The five-hour march to the plateau wasn't easy and there had been mutinies over pay, but the king had personally dealt with these minor indiscretions and would now wait in his capital for news of victory. On Four Crowned Martyrs Day, the holy war at White Mountain began.



"Oh! Poor winter king, what have you done? How could you steal the emperor's crown

By pursuing your rebellion?

Now you do well to flee

Your electoral lands and Bohemia.

You will pay for your mistake with grief

And suffer mockery and shame.

Oh! Pious Emperor Ferdinand, grant him pardon!

Do not hold his folly against him.

He's a very young man,

Who did not realise beforehand How much a crown weighs.

Now it is weighing very heavy on his head.

If he had known, he would not have done what he did"

A popular song at the time in Germany lamented the fate of Frederick V





Standing and shivering in the cold and damp, morale in both camps was low. It was dawn and the hill was covered in a dense fog, which had aided the Catholic march to the location of the battle. Both sets of troops had been on long, arduous journeys to get this far and the will to fight was fading. As the fog lifted at 9am, the two armies faced each other for the first time. Both were up to 30,000 strong, but the Bohemians were partly made up of Hungarian, Swiss and Silesian mercenaries who had no

relation to the ideological and religious desires of the king. They were simply there to get their pay packet. However, on numerous occasions before the battle their pay did not arrive on time, and the freedom fighters on both sides were visibly bitter that they had not received their wage. In the earlier successful Catholic campaign in Lower Austria, the mercenaries were accused of attacking other Catholics as well as Protestants as they showed a lack of discipline and control.



The Second Defenestration of Prague kick-started the Bohemian Rebellion when two Catholic nobles were thrown from a window in the city

OPPOSING FORCES



BOHEMIAN PROTESTANT ESTATE LEADERS

Frederick V; Christian I of Anhalt-Bernburg; Jindrich

Matyas Thurn STRENGTH Approx. 30,000 GAME CHANGERS

The Bohemian forces were full of mercenaries from all over Europe. On the day they could provide the extra impetus an army needed but would they continue to fight with such ferocity if they weren't paid?



CATHOLIC LEAGUE AND IMPERIAL FORCES LEADERS

Ferdinand II; Charles de Longueval, Count of Bucquoy; Johann Tserclaes, Count of Tilly STRENGTH Approx. 27,000 GAME CHANGERS

The mighty Holy Roman Empire could request extra troops from all over its allied lands in Europe. Ferdinand had just become emperor and could call on his vast empire for support – which his weary men were badly in need of.

As well as mercenaries, both sides were led by men who had seen war. Catholic Count Von Tilly was a veteran commander of the Catholic League, while the Protestants were led by Count Jindrich Matyáš Thurn and Christian of Anhalt-Bernburg, who was the principal adviser to Frederick.

Poor morale aside, the Protestants had the higher ground and were making immediate use of it by constructing defensive works. Thurn had placed the cannons on the left flank of his troops and entrenched them firmly in the mud. On the other flank, 300 of the Hungarian contingent, led by Colonel Cornis, had positioned their artillery ready for the Catholic assault. Some 1,500 of the other Hungarian troops stayed at the rear-guard of the battle formation and would stream through the gaps that the frontline soldiers would leave after the initial clash of troops.

In contrast to the divisions on the hill, the Catholic cannons were set out in front to try to force the enemy from the plateau with an artillery barrage. Ferdinand's divisions were split in two, with the Imperial troops commanded by Charles de Longueval and the Catholic League led by Tilly himself.

Bohemian morale deteriorates

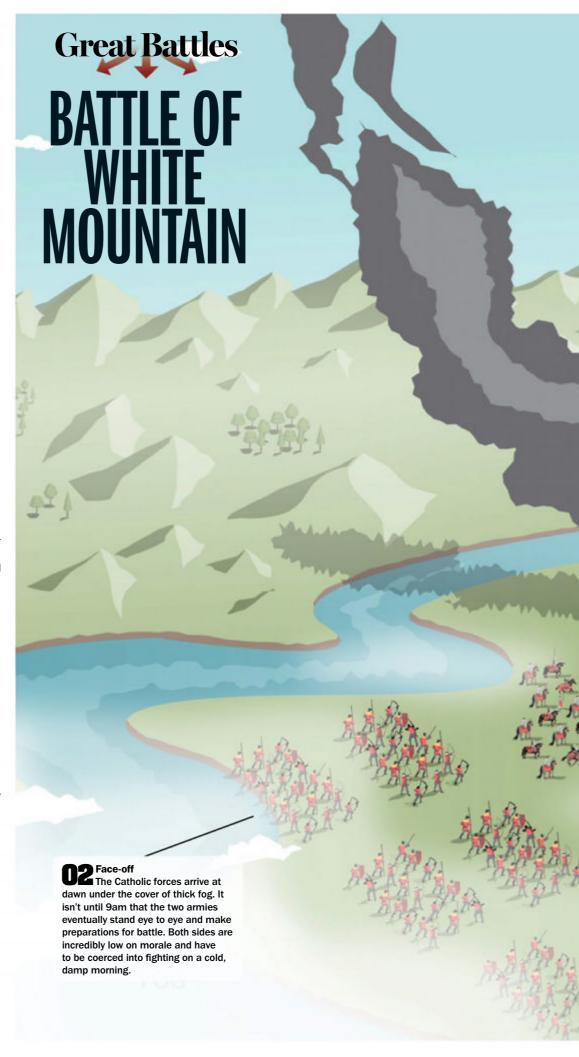
The Protestant strategy did the trick in the opening exchanges of the clash, as the first small Catholic attacks on the hill were beaten off, albeit with some difficulty, at about 11.30am. However, the Catholic League troops soon rallied and the Protestant forces began to crumble, both physically and mentally.

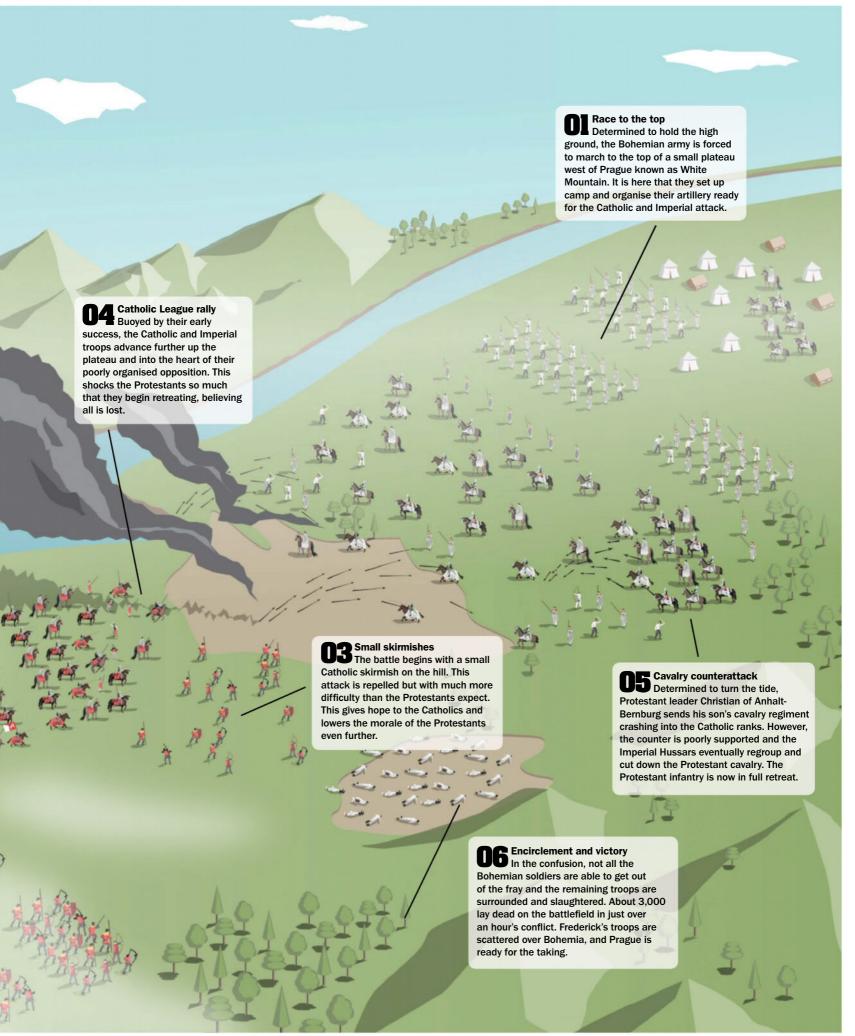
Frederick's taking of power had been so rapid that he simply did not have the manpower or professionalism in his army to realise his ambition. Before long the weakness in his hired army began to show, as men put more faith in their purse than their captains. Mercenaries were common throughout Europe at the time and were extremely effective in utilising their skills to tip the balance in favour of an army.

However, these fighters would only serve for as long as they were paid, and usually as long as they had a better than 50/50 chance of surviving to spend their pay. Seeing the Catholic army rallying below them, the Hungarian mercenaries recalled the massacre of Ruzyne from the night before. In the small village near Prague, a group of Hungarian

"THE HUNGARIANS WERE ALARMED BY THE DIN MADE BY SOME OF THE COSSACKS WHO HAD PURSUED THEM PART OF THE WAY. SOME OF OUR OWN INFANTRY REGIMENTS ALSO SEEMED PERTURBED AND I WASN'T USED TO THAT"

A letter from the Bohemian commander Christian of Anhalt-Bernburg to Frederick V. Christian had sensed the unrest in the camp before the battle had even started







cavalrymen had been assaulted by the Imperial Army. These fears, coupled with their lack of pay, led the Hungarians to flee.

Seeing the withdrawal, Christian of Anhalt-Bernburg sent his son to lead a cavalry charge into the heart of the Catholic battalions. However, this was only a momentary reprieve, as the unsupported charge quickly broke down and the legion was halted by the Imperial Hussars. The Protestant infantry fled until there was only a small Moravian core remaining. The Catholic troops surrounded the final few men and routed them. In less than an hour, victory belonged to Ferdinand as scattered and fleeing mercenaries littered the surrounding hills. More than 3,000 lay dead in the dirt and dust after the brief encounter.

"VICTORY BELONGED TO FERDINAND AS SCATTERED AND FLEEING MERCENARIES LITTERED THE SURROUNDING HILLS"

Reclaiming Prague

Ten cannons were captured along with more loot and plunder. The battle was over but the objectives were not complete for the Catholic and Imperial troops. Prague was now there for the taking and Frederick would meet his end.

The king had originally requested a 24-hour ceasefire but this was declined and he was allowed only eight. Frederick attempted to assemble his men again and begin a back-to-the-wall defence of Prague, but the logistics of this operation proved too difficult and, sensing the treatment he would receive from his enemy,

he hatched an escape plan. There were enough men to fight another day but there was not enough fight left within them. They were a broken and spent force.

Upon the arrival of the Catholics in the Bohemian city, they found the king gone and scores of Protestant refugees streaming out in the opposite direction. Frederick had taken a leaf out of his mercenaries' book and fled, so quickly in fact that he left the crown behind for Ferdinand II to reclaim. Those who remained believed that they would receive sympathy from the enemy, but this was not forthcoming.





The two leaders at the centre of the conflict: (Above) the Catholic Ferdinand II and (below) the Protestant Frederick V



All rebel leaders were tried and executed and all Protestants had their land confiscated, while 27 noblemen were executed in Old Town Square as a brutal show of defiance. 'Leave or be executed' was the order of the day. A non-

Habsburg would never be king again.

An estimated five-sixths of Czech nobility went into exile after the battle and there was a real shift in governance and society under the new Revised Ordinance of the Land, which established a legal basis for Habsburg absolutism up until 1918 and the eventual fall of the Austro-Hungarian Empire. Constitutional rule was abolished and totalitarian rule was now the way of the expanded Habsburg Empire. Large-scale immigration of Catholic Germans came into the area and took over all major commerce and industry, and so began

the growth of the German language and society in areas of traditional Czech culture.

The exiled Frederick would now be forever known as the 'Winter King', a title based on mockery of his short stay on the throne. The effect of the Catholic victory was not limited to Prague. In the wake of the news, Pope Paul V led a parade through the Vatican in honour of the victory. He died of a stroke a few days later

"ALL REBEL LEADERS WERE TRIED AND EXECUTED AND ALL PROTESTANTS HAD THEIR LAND CONFISCATED"

and his successor Gregory XV constructed the Basilica Santa Maria della Vittoria (Saint Mary of Victory) in Rome to further commemorate the new Habsburg rule in Prague.

Despite the resounding victory and the Catholic jubilation, this was only the beginning of the long and gruelling Thirty Years' War. The Catholics made their best efforts to eradicate the Protestant hierarchy but some slipped through the net and fled to other Protestant strongholds, where they would regroup and rearm. The coming war would later become more of a political conflict than a religious one, but the roots of the war began at White Mountain, where there is now a monument on the site of the battlefield dedicated to the fighters of the Bohemian cause. The Winter King didn't know what he had started.

Trigger Point THE SIX-DAY WAR

In 1967 Israel executed a strike that devastated the Arab world's military forces. What started as a simple response to a shipping blockade, would eventually reshape the Middle East

■hough the fighting lasted for less than a week, the effects of the Six-Day War were momentous. It created hundreds of thousands of Arab refugees and placed a million more under the rule of Israel, almost tripling the size of the area it controlled. Ultimately, it was part of a much larger political, religious, and territorial conflict, one that dates back to the founding of Israel in 1948 and continues to this day. After months of skirmishes, threats and political manoeuvring, fighting was inevitable - though in the end, it came down to a shipping blockade in the Gulf of Agaba.

Following the United Nations-enforced partition of Palestine, Israel declared its statehood on 14 May 1948. Consequently, the military forces of Egypt, Jordan, Syria, Lebanon, and Iraq moved to occupy the Palestinian areas not yet under Israeli control. This led to protracted fighting over Jerusalem, with the Arabs holding the east side and Israelis taking control of the main road into the city through the Yehuda Mountains. But by early 1949 Israel occupied most of the Negev region, by which time over 700,000 Palestinians had been expelled or fled from their homes. Armistices were called with each of the opposing Arab states and borders drawn between Israel and its neighbours.

With the rise to power of Egyptian President Gamal Abdel Nasser, tensions flared once again. Nasser's hostile stance on Israel saw him cut off the Suez Canal to Israel, resulting in the 1956 Suez Crisis, in which Israel - and later Britain and France, under the guide of peacekeepers - invaded Egypt. Eventually, Israeli forces withdrew, Egypt ceased the blockade, and a United Nations buffer force was placed in the Sinai Peninsula in an effort to mediate Arab-Israeli relations and avoid further conflict.

"TO EGYPT, THE ROTEM CRISIS WAS PROOF ISRAEL COULD BE DETERRED... FOR ISRAEL, IT WAS A VITAL LESSON IN **MILITARY STRATEGY"**

Four years later came the Rotem Crisis, which saw Nasser deploy Egyptian forces into northern Sinai in response to border tensions between Israel and Syria. The Egyptian forces had taken Israel by surprise. This time, fighting was avoided as both sides stepped down, with Israeli Prime Minister David Ben-Gurion trying to avoid a second outbreak of war. Egypt saw it as a victory. To Nasser, it was proof that Israel could be deterred by the threat of force; for Israel, however, it was a vital lesson in military strategy.

While tensions had mounted for 20 years, the succession of immediate events leading to the closure of the Gulf of Aqaba - and ultimately the start of the Six-Day War - began with the Samu Incident on 13 November 1966. Three years prior to the incident, King Hussein of Jordan had been attempting to bring about peace between Jordan and Israel through secret meetings with members of the Israeli government. Then, on 11 November an Israeli patrol ran over a landmine on the Israel-Jordan border, killing three and injuring six others. Two days later, Israel mobilised almost 4,000 troops and attacked the Jordan-controlled West Bank village of Al-Samu with a force of 600 men, half-tracks, and Centurion Tanks. The strike left 18 dead, 54 wounded and hopes of rectified relations between Israel and Jordan crushed. King Hussein felt betrayed by the operation, but continued in his attempts to prevent guerilla attacks on Israel from Jordan.

Between January and March of 1967, there had been over 250 border incidents, most of which were reported to originate in Syria, causing increased concern within Israel. The Syrians had positioned shell attacks from the Golan Heights, which they maintained were in response to Israeli fire. The back-and-forth attacks continued until, on 7 April, the Syrians opened fire on an Israeli tractor in a DMZ area. Israel responded with armoured tractors and returned fire, followed by tanks, mortars, and heavy artillery. Eventually, the situation had escalated into a full-scale aerial battle, with the Israeli Air Force shooting down six Syrian MiG fighter jets.

With tensions at near-breaking point, Soviet intelligence reported to Egypt that the Israelis were planning a military campaign against Syria, and that Israeli troops were amassing at the Syrian border. Alarmed at





KEY FIGURES



GAMAL ABDEL NASSER (1918-70)

Egyptian president who became the leader of the Arab world. He was a strong Pan-Arab nationalist whose stance against Israel was aggressive. It was his decision to close the Straits of Tiran that encouraged Israel to launch the 'Sinai Strike' and start the war.



KING HUSSEIN IBN TALA (1935-99)

The King of Jordan and member of the Hashimite dynasty. His reign marked improved living conditions for the people of Jordan. Hussein strengthened his military forces and entered a military pact with Egypt – a significant factor in Israel's decision to attack.



LEVI ESHKOL (1895-1969)

Held numerous government positions in Israel before becoming Prime Minister. He forged a relationship with US President Lyndon Johnson, which proved invaluable in the "waiting period", during which time Israel gained political support. Though considered hesitant to attack, his refusal to rush into war gave Israel an advantage.



U THANT (1909-74)

Burmese diplomat and Secretary-General of the United Nations. When Nasser requested that the UNEF relocate from Sinai to Gaza, Thant demanded an all-or-nothing stance, forcing Nasser to demand the complete removal of UNEF from the region. Thant tried to move the UN forces across the Israeli border, but was refused.



ABDEL HAKIM AMER (1919-67)

Egyptian general who served in the 1948 Arab-Israeli war and commanded during the Suez Crisis. He planned Operation Dawn, which would divide Israel through strategic bombing. The plan was reportedly halted when US intelligence got word of it. Amer is largely blamed for Egypt's military failure in the Sinai Strike.



ABBA EBAN (1915-2002)

Israeli diplomat who entered secret peace meetings with King Hussein prior to the Samu Incident. He travelled to various nations, including the US, UK, and France, in an effort to re-open the Straits of Tiran peacefully. Having failed to successfully do so, he ended up supporting military action he had fought to avoid.

the reports, Nasser sent his chief of staff, General Mohamed Fawzi, to verify the Soviets' claims. Fawzi found that the reports had been incorrect, though Nasser remained in a difficult position. He had been publicly criticised for not supporting both Jordan and Syria following the recent Israeli attacks and had been accused of hiding behind the UN Emergency Forces stationed in the Sinai Peninsula, on the Egypt-Israel border. With continuing threats made by the Israelis against the Syrian government, and pressure from the Soviets to unite their defences, Nasser had no choice but to show full support for Syria and make preparations for military action.

Nasser began the re-militarisation of the Sinai by stationing troops and tanks there. Unlike his similar action prior to the Rotem Crisis, Nasser was indiscreet, making his actions and intentions clear to Israel. The Egyptians saw it as a deterrent, confident that, as before, Israel wouldn't risk all-out war. On 16 May, Nasser requested than the UNEF forces withdraw from the Sinai peninsula and remobilise in Gaza, beginning the three-week 'waiting period' before the war. UN Secretary General U Thant attempted to negotiate the UNEF position; on 18 May Egypt formally requested the complete removal of the UNEF. Attempts by the UNEF to relocate on the Israeli side of the border were also refused, with Israel wary of the influence of UNEF representatives from nations hostile to Israel.

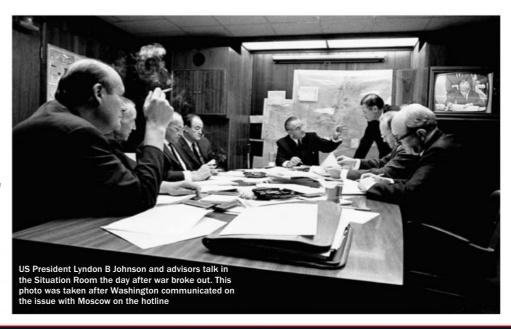
The international response to the removal of UNEF was indifferent. Few nations seemed to believe that direct action would come of it, and therefore went largely unopposed. Israel, however, was less apathetic about what Egypt appeared to be planning, and assumed Nasser was making preparations to attack. While Nasser's forces had been amassing in the Sinai, the Israeli air force had been training in refitting its aircraft to make an unprecedented number of attacks in one day, a move that could - and eventually did - overwhelm the Egyptian air force.

On 22 May came the announcement that Israel would see as an irrefutable act of war. Nasser created a blockade in the Straits of Tiran - the sea passages that separate the Gulf of Aqaba and Red Sea - to any ships belonging to Israel or carrying "strategic materials", effectively closing off the key Israeli port of Eilat. With 90 per cent of the country's oil passing through the gulf, Israel had already declared a blockade would be seen as hostile; Nasser's actions were the last straw.

According to Egypt, only itself, Jordan and Saudi Arabia held sovereignty over the gulf. The



"WITH CONTINUING THREATS AND PRESSURE FROM THE SOVIETS, NASSER HAD NO CHOICE BUT TO SUPPORT SYRIA AND MAKE PREPARATIONS FOR MILITARY ACTION"



FOUNDATION OF ISRAEL

The nation of Israel is

founded, with the Head

Prime Minister. The first

Arab-Israeli War begins,

creating the Palestinian

refugee crisis.

David Ben-Gurion becoming

of the Jewish Agency

NASSER TAKES POWER

THE SUEZ CRISIS

Gamal Abdel Nasser rises to power, eventually becoming Egyptian President. His Pan-Arab conservatism and opposition to Israel causes renewed tensions. He becomes a major figurehead for the Arab world.

After Nasser nationalises the Suez Canal, Israel invades, British and French forces also arrive under the pretence of peacekeeping, though they are working with Israeli to regain control of the canal



ISRAEL WITHDRAWS

A UN Emergency Force is stationed in the area and Israeli forces withdraw. Despite Egypt's forces being defeated, the withdrawal causes Arabs to view the Suez Crisis as an Egyptian victory.

THE SAMU INCIDENT

Israel launches a border assault on the village of Samu in Jordan's West Bank. It's Israel's first military action since the Suez Crisis in October 1956, and follows years of secret peace talks with Jordan.



rightful usage of the Straits of Tiran had been a contentious issue within Israeli-Arab tensions, dating back to the Suez Crisis 11 years earlier. Many nations considered them international waters, therefore open for use by any state. Egypt had also set a precedent by previously following this, and permitting other nations to pass through without incident, even during times of conflict, such as its 1950 occupation of the Saudi islands of Sanafir and Tiran.

Egyptian General Abdel Hakim Amer planned an attack on Israel to take place later that month, codenamed Operation Dawn. It would have seen the bombing of cities, ports, and other strategic locations, including a nuclear research facility. Then, on 30 May, King Hussein of Jordan came to Cairo to sign a mutual defence pact with Egypt, putting his own forces under the command of Egypt. Other Arab states – Iraq, Sudan, Kuwait and Algeria – became mobilising forces, ostensibly in support of Egypt. But it was too late. The Straits of Tiran blockade had already set the wheels in motion for Israeli military action. As far as the Israeli cabinet was concerned, it had

"ISRAEL HAD ALREADY DECLARED A BLOCKADE WOULD BE SEEN AS HOSTILE - NASSER'S ACTIONS COULD ONLY HAVE ONE INEVITABLE CONSEQUENCE"

allowed sufficient time for the blockade to be lifted, and unlike the Rotem Crisis, it would not wait to be caught unaware this time. On 5 June Israel attacked, launching Operation Focus – the preemptive 'Sinai Strike' that would all but destroy Egypt, Jordan, Syria and Iraq's air forces and begin the Six-Day War.

The Israeli Air Force launched a mass attack of almost 200 jets at approx 7.45am. It found the Egyptian airfields poorly defended and vital equipment and vehicles unprotected. Egyptian command also suffered communication

problems, so warnings of the impending attack from Jordanian radars never reached the targeted military bases. As the strike began, only four Egyptian aircraft were in flight; none of them were armed. The attack employed a combination of bombing and strafing the aircraft on the ground, and using penetration bombs to destroy the ground and ensure Egyptian aircraft were unable to takeoff. Over 300 Egyptian aircraft were destroyed and 100 pilots killed. Later that day, more strikes were launched on other Arab air forces. The attack was a success – surprising even Israel in its effectiveness – and guaranteed air superiority.

The war was a disaster for the Arab nations. By the time the UN enforced a cease-fire on 10 June, it was over. Israel eliminated Syrian forces from the Golan Heights, took control of the Gaza Strip, Sinai Peninsula, and Jerusalem, and drove Jordan's forces from the West Bank. From this came hundreds of thousands of refugees and millions of Palestinians under the rule of Israel. The victory was decisive and quick; its effects were long-lasting, shaping the region to be as it stands today.

APRIL 1967 13 MAY 1967 14 MAY 1967 18 MAY 1967 22 MAY 1967

SYRIAN AIR BATTLE

A Syrian guerrilla assault on Israeli farming land turns into a deadly game of one-upmanship, ending in a full-on aerial fight, during which the Israeli Air Force shoots down six Syrian MiG jets.

FALSE SOVIET REPORTS

Soviet intelligence informs Syria that Israel is amassing troops and making preparations to invade. The reports prove to be erroneous, but add further tensions to the alreadyvolatile situation.

THE WAITING PERIOD BEGINS

Bowing to public pressure to respond to Israeli military attacks against neighbouring Arab states, Nasser mobilises his forces in the Sinai. He intends it as a deterrent, rather than a direct threat to Israel.

UNEF REMOVAL REQUESTED

After initially requesting the UNEF move from the Sinai to Gaza, Nasser demands the complete removal of the UN buffer force. UN negotiations to remain are unsuccessful.

STRAITS OF TIRAN BLOCKADE

Nasser puts a blockade into effect, closing off the Gulf of Aqaba's key shipping passages to Israeli vessels. The blockade shuts off crucial access for Israel's port city of Eilat and is seen as an act of war.





After decades of conflict, the Jacobites and their new leader Bonnie Prince Charlie were ready for one final showdown

SCOTLAND'S LAST TO STAND STAND

WORDS JACK GRIFFITHS

byears on from the disastrous loss at the Battle of Glen Shiel, the time had come for the fifth and final Jacobite uprising. Prince Charles Edward Stuart, the claimant to the English and Scottish thrones, had sailed to Scotland intent on restoring the Catholic House of Stuart and reversing the Glorious Revolution. Sailing from France, the Young Pretender had struck a deal with Irish merchants in Nantes for safe passage to Britain that would remain undetected by the Royal Navy. He arrived with just seven men and his own confidence in his rightful claim. The prince was sure of a victory for the Jacobite cause and would triumph where his father, James Francis Edward Stuart, had failed.

Within a short period, Bonnie Prince Charlie had galvanised support from Wales and Ireland and also the Tory Party in London, who were plotting to end the Whigs' monopoly of power in the capital. The timing was ideal, as George II's weary British Army had been engaged on the continent for five years in the War of Austrian Succession and was not at full strength at the time of the prince's landing. The March of '45 was about to begin, to glory or the grave.



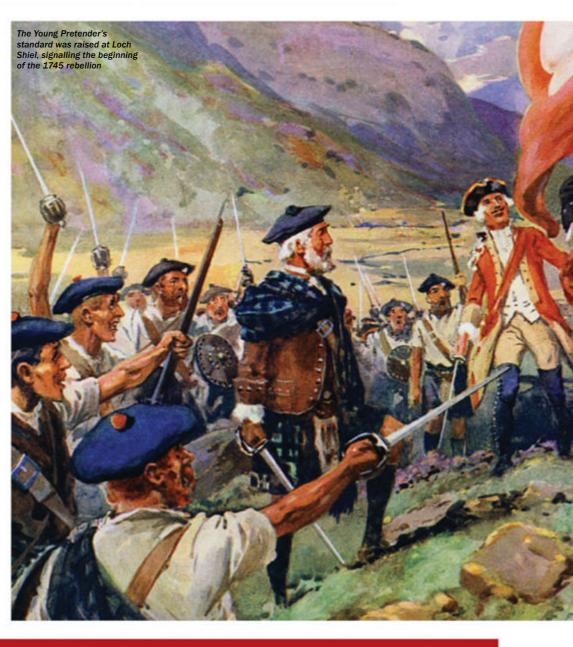


The 1745 rebellion was originally meant to take place in 1739. Britain had spread its forces over Europe in aid of Austria, so France and Spain saw the perfect opportunity to invade the British Isles. This alliance would have been of great benefit to the Jacobite cause, but poor weather conditions and a hesitation in planning led to the two European powers pulling their support. As the threat from the continent died down in England, Bonnie Prince Charlie made his move and sailed to the beaches of Eriskay, Outer Hebrides, on 23 July 1745 with seven companions. Known as The Seven Men of Moidart, they were four Irishmen, two Scots and one Englishman who had accompanied the prince across the North Sea.

They arrived to find the Jacobite clans at a low ebb. With numerous defeats at the hands of the British under their belts, the clans felt that another uprising would prove futile. The 24-year-old Young Pretender, oozing with self-assurance and arrogance, roused the Highlanders and the chiefs of both Clan Cameron and MacDonald for one last rebellion that would this time take back the British throne for the House of Stuart.

Bonnie Prince Charlie made the village of Glenfinnan his first stronghold and his standard was raised there on 19 August. From here he assembled 1,500 Highlanders and captured the much larger city of Perth. Prince Charles rode into Perth in full highland dress in the guise of his ancestor Robert the Bruce. The uprising then went one step further as they captured Edinburgh without a fight. The new de facto

"With numerous defeats, the clans felt that another uprising would prove futile"



KEY FIGURES OF THE REBELLION



PRINCE CHARLES EDWARD STUART
The charismatic leader of the Jacobites made up for what he lacked in military intellect with an unwavering self confidence. The son of the heir to the House of Stuart, Bonnie Prince Charlie wanted nothing more than to hit back at the Hanoverians. Could the Young Pretender galvanise the Jacobites?



LORD LIEUTENANT-GENERAL GEORGE MURRAY
The prince's right-hand man was a
professional soldier and a veteran of the
1715 and 1719 uprisings. After a period of
exile from Scotland, he originally declined
to support the 1745 rebellion but soon
changed his mind. He often disagreed with
the prince but went on to prove himself an
astute military leader.



KING GEORGE II

The second Hanoverian king of Great
Britain and Ireland had been on the
throne for 18 years by the time of the
Jacobite rebellion. With his military forces
engaged in war on the continent, the
Jacobites proved to be a big problem for
the king, who was allegedly ready and
willing to flee London.



PRINCE WILLIAM, DUKE OF CUMBERLAND
The king's son was an experienced general and was recalled from the war in Europe to lead the king's forces against the Jacobites. He had put special plans in place to fight back against the Highland Charge and was ruthless in his pursuit of the Young Pretender. He was nicknamed 'Butcher Cumberland'.



"It seemed to all that the poorly armed Jacobite force of farmers and peasants was there for the taking"

leader was high in confidence and triumphantly proclaimed his father as King James VIII of Scotland and III of England.

The rebellion takes flight

The Jacobite advance didn't go unnoticed in London and by September an armed response was on its way. Led by the experienced General Sir John Cope, a pitched battle took place at Prestonpans, just east of Edinburgh. Both sides numbered about 3,000 men as the Hanoverians positioned their defences between a stone wall and a bog. The British Army was made up of professional, but weary, infantry, dragoons and a mighty artillery of six 1.5-pounder galloper guns and six mortars.

It seemed to all that the poorly armed Jacobite force of farmers and peasants was there for the taking and the young upstart Prince Charles would be disposed of before the rebellion even began. However, after a conversation with two local men with a vast knowledge of the area, the Highlanders decided that they would utilise a hidden path to catch General Cope by surprise.

Despite an attempted mutiny, the Jacobites mobilised under the cover of darkness. The opposing camps were only 365 metres (1,200 feet) apart but the Highlanders managed to split into two groups and, undetected, one headed down the hidden path while the other seized a British baggage train.

As dawn broke, the British finally got wise and responded with artillery fire. The incensed Highlanders fought back hard with their trademark Highland Charge, straight at the artillery fire and into the British ranks. Closequarters combat suited the Jacobites down

General Cope's army was unable to move from its defensive position and was routed within 15 minutes. Only about 200 troops escaped. Just 40 Jacobites were killed as the Young Pretender scored a devastating victory in the first exchanges of the rebellion. He now believed that the march south was God's will and headed onwards with 5,500 men towards the English border.

Prince Charles was on the crest of a wave after his victory at Prestonpans but instead of sweeping southwards, he paused in an attempt to gather more troops. The young prince reasoned that if he could gain the assistance of the Lowland Scots, his army would be bolstered significantly. However, the majority of the Lowlanders had no interest in the Jacobite cause and declined raising arms. This respite allowed the British Army to reorganise itself but, for the time being, there would be no stopping the Highlanders.

Over the next month, the Jacobites marched through the English towns and cities of Penrith, Lancaster, Preston and Manchester. Through every area they conquered, the Young Pretender appealed to the residents to join them on the battlefield for the march to London. Yet, just as he had found with the Lowlanders back in Scotland, the motivation to march wasn't there. Only 300 men were recruited from the conquest as the Jacobite groundswell faltered.



The Battle of the Boyne was one of the first

ORIGINS OF THE REBELLION

THE 1745 UPRISING WAS PART OF A POLITICAL AND RELIGIOUS STORM BREWING SINCE 1688

The Glorious Revolution of 1688 was a bloodless coup that deposed King James II. The king's devotion to Catholicism was widely unpopular in England so a group of nobles known as the Seven Immortals decided to invite the Dutch Protestant Prince William of Orange to lead the country instead. The ousting of the Catholic king caused uproar in Europe and also on the British Isles. What followed was a series of uprisings in Ireland, Wales and most prominently, Scotland.

1 JULY 1690 BATTLE OF THE BOYNE

The Jacobite, or Williamite, War took place in Ireland as James II attempted to regain his kingship from the Protestants. The war lasted nearly two years and the resistance was defeated at this battle.

13 FEBRUARY 1692 GLENCOE MASSACRE

After the failure to sign an oath pardoning the Highland clans for their role in the rebellion, two Redcoat companies were sent to Scotland to deliver swift justice. The MacDonald Clan were targeted and more than 200 killed in the massacre.

23 MARCH 1708 UNSUCCESSFUL FRENCH LANDING

A French naval battery attempted to land the Old Pretender James III on the Firth of Forth. 6,000 French troops sailed with the Stuart king from Dunkirk but were thwarted by the Royal Navy.

13 NOVEMBER 1715 BATTLE OF SHERIFFMUIR

The 1715 uprising led by John Erskine, Earl of Mar, failed to get further south than Perth. Sheriffmuir was the turning point as the rebellion ground to a halt.

24 SEPTEMBER 1722 ATTERBURY PLOT

The Bishop of Rochester Francis Atterbury and a selection of Tory Lords and Earls planned to overthrow Robert Walpole and the Whig government but were exposed by government spies.

The Butcher

A march on London was still the primary objective, but the Jacobite high command believed that without additional troops, a retreat back home to rearm and regroup was required. Meanwhile, the British had reorganised and were now led by King George II's son, Prince William Augustus, Duke of Cumberland. A veteran of conflicts on the continent, 'Butcher Cumberland' wanted nothing more than to see the back of the rebellion.

Even though the main British force was across the Channel in Europe, Cumberland still had a good pool of soldiers to pick from. The average Redcoat was required to be aged between 17 and 45 and least 1.62 metres (5 feet 4 inches) in height. The soldiers of the crown were expertly drilled, but food, drink, clothing and equipment were deducted from their pay packet.

The Jacobite army was nowhere near as regimented. Upon Prince Charles' arrival, Highland clansmen were called out by their chiefs to raise arms and fight and they were joined by minimal numbers from Wales, Ireland,

France and English Jacobites. Unlike the British, the Highlanders didn't have a regular cavalry and the numbers on horseback in battle depended on how many soldiers owned a horse.

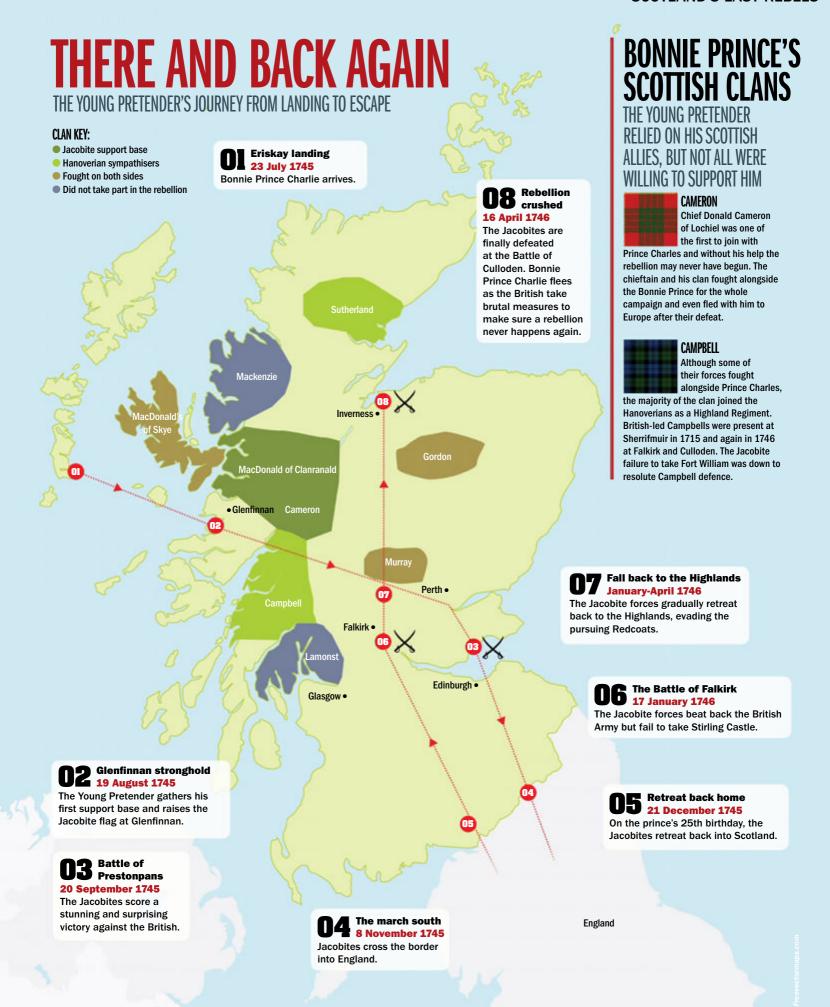
On the road, the Jacobites didn't have the benefit of garrisons to lay low in. Instead, they would grab food from the towns they went through and rather than having tents, they would wrap themselves in their traditional tartan plaid. The route south through the rocky, hilly terrain of the Highlands was dictated by the old military roads of Scotland that had been used in earlier rebellions: Wade's Roads.

The retreat north

Although they were in retreat, the Jacobites proved their fighting spirit and skill with victories at Preston and Falkirk. Despite their successes, the Jacobite cause was losing momentum. The ragtag nature of the divisions meant the Highlanders sporadically returned to their glens on the march north, which lessened the fighting force. Worse still, the Lowland Scots, who had already rejected Prince Charles, joined the Government Army. The prince's promise

"The Highlanders didn't have cavalry and the amount on horseback depended on how many soldiers owned a horse"





SCOTLAND'S LAST REBELS

of French military assistance had also come to nothing. As they had not secured the lands behind them, there was a real danger of encirclement, so the army marched back north from Swarkstone. This village on the outskirts of Derby, 193 kilometres (120 miles) from London, would be the furthest south the rebellion would ever get. The staggered retreat was a success, with the Jacobites fighting off frequent British skirmishes.

By Christmas, Prince Charles and his army had made it back to Glasgow. Here, he once again appealed for assistance but the townspeople were not interested in his rapidly deteriorating mission. Both Glasgow and Edinburgh were now switching to the Hanoverian cause. The full British force eventually caught up with the Jacobites at Falkirk ten days later, where the strategic brilliance of Lieutenant-General Lord George Murray helped them once again succeed against better-equipped opposition.

The victory at Falkirk in January 1746 could have been a vital rebirth for the uprising, but due to growing tension between Murray and Charles, the advantage was never capitalised upon. Due to the condition of the Jacobite army, withdrawal was required but it infuriated the Young Pretender, who had London in his sights. The capital, fearful of the constant advance of the rebellion, was in a state of shock. The episode is known as Black Friday and the panic had even spread to royalty, with many accounts suggesting that King George II had his valuables packed ready to flee.

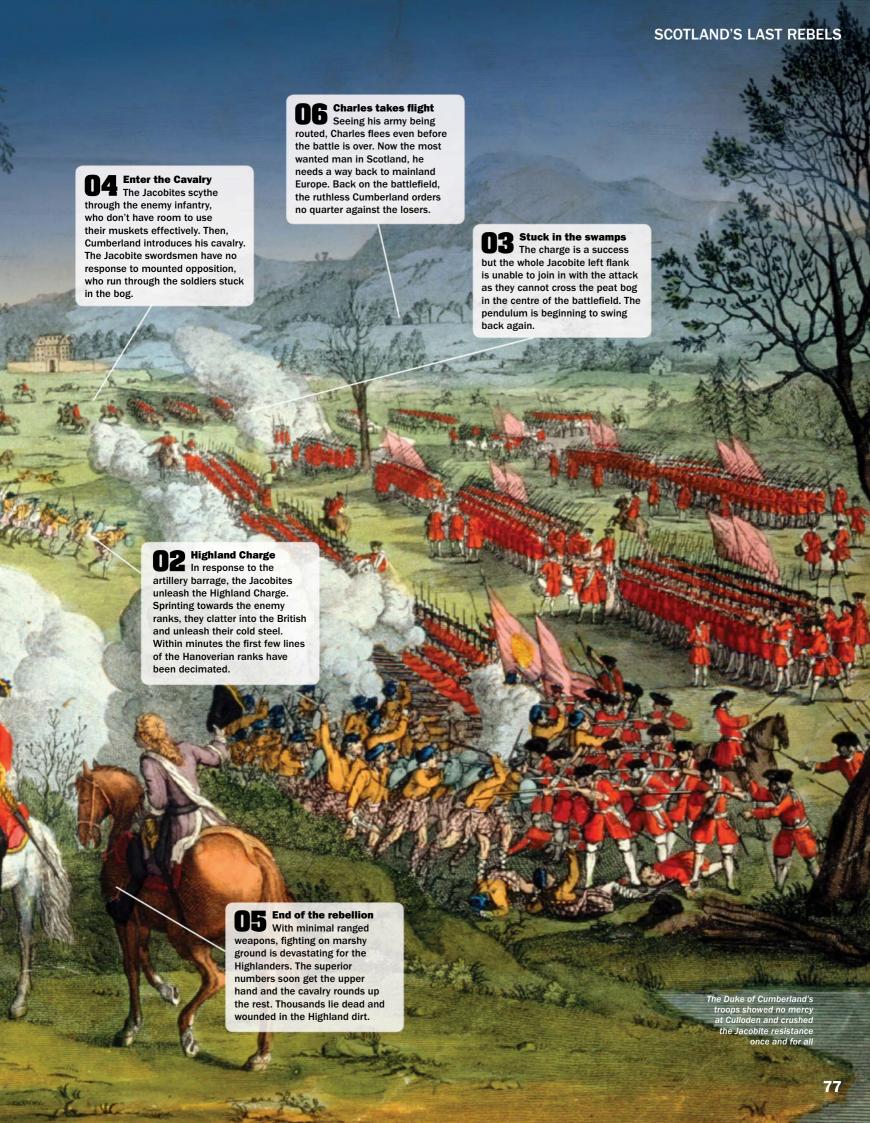
Onwards to Culloden

The Jacobite victories, though valiant, were all hollow. Fort George and Fort Augustus were captured in a month but both Fort William and Stirling Castle stood firm against the rebels. Dwindling food supplies, more leadership squabbles and an illness weakened the army even further, forcing them back to the gateway of the Highlands, Inverness. Still suffering from desertion and starvation, a stand was taken just outside the city on Culloden Moor. The last pitched battle on British soil, Culloden would be judgement day for the rebellion. Win, and a counterattack on the British could be started. Lose, and the Highlands would fall into enemy hands and the uprising would be over.

Emerging on to the field of battle, the Jacobites had discarded all their captured artillery on the long road north. Murray advised Prince Charles to scatter his forces into the hills and begin a campaign of guerilla warfare. This strategy would be of great benefit to the poorly equipped Jacobites, who were less likely to be victorious in combatting the British head on. The supremely confident prince took this sound advice with a pinch of salt and brought

"The king's soldiers were let loose on the nearby villages and no quarter was given"





salt and brought his troops into the open as battle commenced.

Just like at Prestonpans, the Highlanders attacked Cumberland's camp overnight, attempting to catch the Hanoverians off guard. This time round, however, the skirmish was misjudged - Cumberland's forces were awake celebrating their leader's 25th birthday. So with the element of surprise lost, the now sleepdeprived Highlanders retreated. The next day, a freezing gale tested the mettle of the 4-5,000 strong Jacobite forces and 8-9,000 government soldiers who stood 400 metres (1,312 feet) from one another. Cumberland's men were boosted by a number of Scots who fought for the crown. The Jacobites, led directly by Charles for the first time, converged in a narrow, dense pack ready to charge. Cumberland had premeditated this tactic and trained his artillery on the centre of the group, pummelling the crowded area with fire as the Jacobites became little more than cannon fodder.

Breaking out, the Highlanders made it to the Hanoverian left flank and began slicing their way through, regiment by regiment. In response, the British unleashed their cavalry to wreak havoc with the Jacobite ranks. Because of the narrow, marshy ground, the whole Jacobite left was unable to join the attack as the cavalry swept through. Prince Charles had lost. About 2,000 Jacobites died or were wounded in the hour-long battle as the Redcoats plundered and pillaged the surrounding area for weeks after. It was here that Cumberland would earn his nickname Butcher. The Jacobites were not to rebel again, and the duke would make sure of it.

Decline of the Jacobites

The Duke of Cumberland was under orders to quash the Jacobite threat, but after Culloden it was no longer a war or even a battle, it was a massacre, an extermination of the Highland way of life. The king's soldiers were let loose on the nearby villages and no quarter was given as houses were broken into, pillaged and then burned. An estimated 450 innocent bystanders, including women and children, were killed without remorse.

Jacobitism was no longer a political force, as a total repression of Highland and Gaelic culture got under way. Many Jacobites were packed onto prison ships for the remainder of their lives while others were deported to American plantations to work as slaves. Meanwhile, Prince Charles had managed to escape, fleeing before the battle even finished, but 80 captured Jacobite leaders were tried and executed or imprisoned for life as an example of the price of treason.

Hunt for the Young Pretender

Tragically the Jacobites were now all too willing to seek terms and the butchery was mostly unnecessary. The Bonnie Prince now had a huge price on his head and Cumberland would turn over every town in the Highlands until he

BLACK FRIDAY

SOUTHERN ENGLAND WAS GENUINELY AFRAID OF THE JACOBITE THREAT, ESPECIALLY IN THE CAPITAL

Although the legend has been embellished, there was a fear in Protestant England that the March of '45 would succeed. In December 1745, the Jacobite forces made it to the most southerly point of their campaign. Swarkstone, a village on the outskirts of Derby, was only 193 kilometres (120 miles) from London and the southerners began to panic. The news reached London on 6 December and the residents of the capital rushed to the nearest bank to withdraw their savings. The banks of London couldn't handle the sudden influx of requests, and the event is now known as Black Friday. However, the day was not one of celebration for the Jacobites. With their supply lines dwindling and hunger becoming a severe problem, they were forced to turn back and retreat home. The rebellion would lost all momentum as the British regrouped and pursued the Jacobites back to Scotland.

"Jacobitism was no longer a political force, as a total repression of Highland and Gaelic culture got under way"

THE HIGHLAND CHARGE INSIDE THE LEGENDARY JACOBITE BATTLE TACTIC

As terrifying as it was effective, the Highland Charge was a simple but devastating shock tactic. Occupying the higher ground at the start of the battle, the Jacobite hordes would unleash a ferocious charge at their enemies. Although many would be lost in the rifle fire against them, their sheer numbers would quickly overwhelm the British muskets.

The Jacobites were skilled at hand-to-hand combat, so would take many down as the British struggled to use their rifles and bayonets in close proximity. The strategy was used successfully throughout the rebellion, especially at Prestonpans where the British abandoned their positions at the sight of the charge. The effectiveness of the charge was nullified at Culloden, where the Jacobites were routed. Cumberland instructed his deep ranks of infantry and artillery to fire constant, relentless volleys at the charge bringing it down before it could take any effect.



"All chiefs were stripped of their power and all weapons, including bagpipes, were ordered to be surrendered"

was found. With a huge bounty available to his captor, the duke was sure he would be turned in as his soldiers searched high and low.

As troops swept through Scotland, many Scots still loyal to the Jacobites helped the scattered army hide from their pursuers. Anne Mackay, who was living in Inverness at the time, took in two wounded Jacobite soldiers and cared for them. Despite bribery and interrogation from the occupying Redcoats, she didn't give away any information and the two soldiers managed to stay hidden until March 1747, when they made their escape back to their homelands. Accounts such as this are common in the memory of post-rebellion Scotland, with the story of Flora MacDonald probably the most well known. On his retreat, the prince was anxious to escape the mainland and sought the help of Flora. With Charles disguised as an Irish maid, the two made it to the Isle of Skye before Flora was caught and taken to London.

On the mainland, the clan structure of Scotland was dismantled. All chiefs were stripped of their power and all weapons, including bagpipes, were ordered to be surrendered. The wearing of all tartan plaid was forbidden and many Highlanders left their homelands and emigrated to Ireland, Europe

and even as far as the Americas and Australia. Not all of Scotland was reeling from the failure of the rebellion, with Lowlanders rejoicing that the Union was still safe and they could be part of the growing British Empire. Scotland was still part of the Union and Jacobitism ceased to exist as a political and a military force. But what had happened to the Young Pretender?

Spending five months as a fugitive, Charles went from town to town trying to get transport to France. After the help he received from Flora MacDonald, he eventually managed to make his way back to France and away from his hunters. He spent his time back on the continent wallowing in self pity. He became an alcoholic and after his wife left him he had a series of lovers and acquaintances.

In Scotland, the aftermath of Cumberland's march through the Highlands resulted in the Act of Proscription and the Heritable Jurisdictions Act 1746. Both these documents abolished the long-standing clan and chieftain systems. The Bonnie Prince never let go of his hope of reclaiming Scotland, but all his attempts at another uprising fell through. He passed away in 1788 at the age of 67. This left his brother, Henry, as the only Stuart left in the bloodline. With his death in 1807, the Jacobite line ended and it is now remembered only in song.

WHAT WOULD HAVE HAPPENED IF THE JACOBITES WON?

Daniel Szechi, Professor of Early Modern History at the University of Manchester, talks alternative history and turning points



HOW MANY OF THE HIGHLANDERS WERE SUPPORTIVE OF THE YOUNG PRETENDER?

Charles landed in July and only managed to muster

enough troops to march south in November. So it took quite a while. The problem is that the Scottish Jacobites had always said that they would turn out in serious numbers for a rebellion if they had the assistance of a French army. But Charles arrived virtually on his own with only one small ship full of weapons and seven men.

WHAT WAS THE KEY BATTLE/TURNING POINT OF THE REBELLION?

I think the Battle of Falkirk was equally as important as the Battle of Culloden. The Jacobites scored a key victory at Falkirk and if they had realised fully the situation they were in, they might have followed this up and another British army would have been completely smashed, rather than escaping in disorder and able to recover to fight another day.

WHAT WOULD HAVE HAPPENED IF THE JACOBITES HAD WON?

The most obvious is that there would be no need for a Scottish referendum on independence, because Scotland would have been separated from England.

Economically, it would have a privileged relationship with France. Scotland would have been unplugged from the new English Empire. In England, Catholics would have had full religious civil rights. Would Charles have been busy turning England Catholic? Not in a million years. The man had no religious feelings at all.

England under a Stuart King would have been an ally of France, not an enemy. The American Revolution was only possible due to French intervention, so if there was a revolution, there would have been no French help to ensure it succeeded.

Could England alone have then suppressed the Americans? I cannot say.



A Libyan centrifuge may have once conjured up images of a crazed dictator's pursuit of WMDs, but the centrifuge of history threatens to further break apart a nascent Libyan state

WORDS MARWAN KAMEL

n the wake of a really horrific attack by a purported branch of ISIS (Islamic State of Iraq and Syria) on a museum in Tunisia, media in the West has raised concerns about the spread and spillover of the most recent Libyan Civil War, which began in 2014.

Many consider the Arab Spring, and subsequent Arab Winter, to mark a

significant departure of many countries from the role of subalterns at the feet of imperial powers. Instead, these states are making their first moves towards the end of post-colonialism and beginning to assert and define themselves as modern nation-states. However, historical centrifugal forces have sent Libya splitting apart again, which may be key in determining where its future lies.



While the shape of modern Libya was essentially moulded by the hands of Italian colonialism, the country's civil war has essentially split it back into the administrative subdivisions created by the Ottomans: Cyrenaica, Tripolitania, and Fezzan.

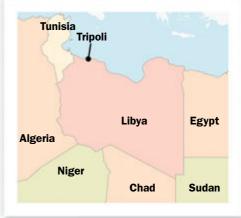
Significant cultural differences have developed between Eastern, Western, and Southern Libya, not only in terms of ethno-

cultural factors but also geographical, topographical differences. The area between what is now Tripolitania (Western Libya) and Cyrenaica (Eastern Libya) marked a tumultuous divide between Carthage and Rome. It was later defined as the border between the Eastern and Western Roman Empire. As for Fezzan (Southern Libya), only the Ottomans bothered

to even try to subdue it. The Romans always feared to tread into barren deserts throughout the empire, but the Ottomans erected huge fortresses in the middle of the Sahara to attempt to control the south.

Throughout its history, Western Libya cultivated extensive cultural ties with the rest of the Arab west - the Maghreb. Separated by a gulf and a stretch of sand, Eastern Libya could be defined as the beginning of the Arab east the Mashriq. Culturally, this region owes more to Cairo than Tripoli.

Cyrenaica has traditionally been no-man's land, further aggravated by infrastructure problems created by underdevelopment during a succession of different powers. Benghazi's position on the other side of the Gulf of Sirte also allowed it to develop economically and grow in population. Under Qadhafi it would remain a hotbed of opposition to his rule and



10 May 1801 Pasha Yusuf Karamanli. acting independently of the Ottoman Empire, declares war by cutting down the flag of the US consulate in Tripoli.

27 April – 13 May 1805

The Siege of Derna begins with US ships opening fire on Derna's fort. Eventually, troops are also sent ashore. This is the first US land battle on foreign soil and the turning point of the First Barbary War.

10 June 1805

Pasha Yusuf Karamanli signs a treaty with the US to end hostilities. Jefferson agrees to pay \$60,000 in ransom for 300 Americans captured during the conflict, but draws a distinction between paying ransom and paying tribute.



Tripolitania

Fezzan

THE TRADITIONAL

REGIONS OF LIBYA

form a political power base for the opposition following his fall.

Fezzan is mostly nomadic hinterland. Some regions are so remote that the Ottomans would even use this locale as a Siberia-type exile for suspected Young Turks during the rule of Abdulhamid II in the late 19th Century, as Istanbul was virtually inaccessible from here. While there are significant supplies of resources like petroleum, the population is sparse. Tensions here have historically strained relationships between sedentary and nomadic people and also between ethnic groups. Even in his 1377 CE work, the Muqaddimah of Ibn Khaldun notes that the Maghreb has few people and was mostly settled by nomads. He also notes the tensions between Tuaregs and Bedouin and people from the cities who are dependent on militias for protection, while those in the desert are self-reliant. Qadhafi would eventually exploit these tensions. As a result, these regions would largely remain loyal to him during the 2011 revolution.

Tripolitania was the traditional seat of governance in Libya and also home to the majority of its population. The importance of its fertile, coastal, Mediterranean climate has been recognized by all of Libya's rulers. The region, centred on Leptis Magna, was the breadbasket of Rome. Naturally, cities developed close to their source of food. With the exception of the Senussi dynasty – which originated from Cyrenaica – all the different powers that ruled Libya also placed their centres of rule in this area. When Qadhafi

overthrew the Senussi king, Idris I, in 1969, he made sure power was shifted back to Tripoli.

Foreign involvement

Libya, in general, has had a tumultuous relationship with the West throughout its history. In particular, the eastern province of Cyrenaica had received a great deal of punishment from foreign powers. The city of Derna withstood sieges from almost every player to involve itself on Libya's soil – in time it would also be the first place where ISIS would establish its North African foothold. Although not currently a major force in Libya, ISIS was able to establish itself by exploiting local sentiments of distrust against foreign powers and their combat experience fighting the US in Iraq.

After raiding an insurgent headquarters in 2007, US troops found a list of 606 foreign fighters in Iraq – 19 per cent of them were from Libya. The number was especially alarming because of its disproportionate size in respect to Libya's small population. Over half of these Libyan fighters came from one city: Derna.

The attacks against the US Embassy in Benghazi and the rise of a branch of ISIS in Derna have been sensationalised by pundits in the US as examples of a continued cultural and military assault against the West by what they see as savage, fundamentalist, Islamist war against the US going back centuries. The best example of this history, they argue, is Thomas Jefferson's Barbary Wars of the early 19th Century, but the real history is more complex.





THE BLOODY COST OF THE CONFLICT LIBYA

5.202†30,000 Total killed in war since 20 mo/ Pre-war

Libya's population 30% re-war unemployment rate

50,000: TOTAL WOUNDED

KEY GROUPS: Libyan National Army, New General National Congress/Libya Shield Force, Shura Council of Benghazi Revolutionaries (includes Ansar al-Sharia), ISIS (Wilayat Barqa, Wilayat Tripolitania, Wilayat Fezzan)

About 3,000 Killed in violence since a since Qadhafi's fall



17 June - 19 June 1815

The Second Barbary War. After the conclusion of the War of 1812, an empowered US turns its sights on North Africa. The treaty signed at its conclusion with the Dey of Algiers guarantees no further tributes and grants the US full shipping rights.

1918

Al-Jumhuriya al-Trabulsiya/Tripolitanian Republic declares independence from Italian Libya. A formal declaration occurs in 1918 at the Paris Peace Conference. It is the first formally declared republican government in the Arab world, but due to a lack of international support, disintegrates by 1923.

16 September 1931

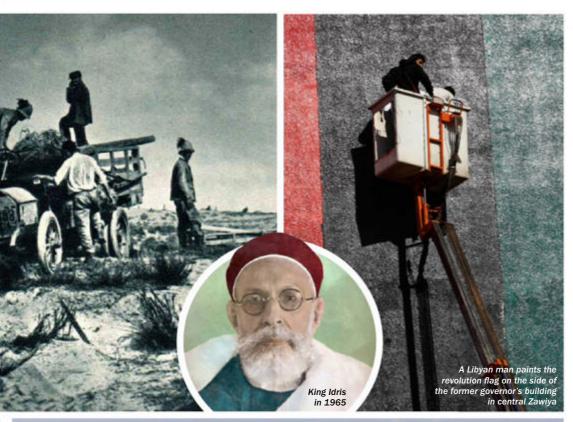
Libyan resistance figure Omar Mukhtar is executed by hanging at a POW camp in Suluq. Resistance to Italian colonization ends and Libya is considered "pacified".

1 September 1969

The Free Officers Movement led by Colonel Mu'ammar al-Qadhafi stage a coup d'état and depose King Idris. Qadhafi declares the former constitution a neocolonial document and therefore null and void. The royal family spend seven years under house arrest.

21 February 1973

Israeli fighter planes shoot down Libyan Arab Airlines Flight 114 over the Sinai Desert killing over 100 passengers.





The Ottomans preferred to govern through carefully hand-selected, local, strongmen. In the Maghreb, these local leaders were used to protect Ottoman shipping interests in the Mediterranean and into the Atlantic, who often came under attack from Venetian. Spanish, and other European ships. In the later Ottoman period, they were afraid of being outclassed by the power of the Royal Navy. So, seemingly autonomous corsairs started to run a protection racket on European and American ships, with many Western nations simply capitulating and paying tribute. The Ottomans and even their neighbours eventually lost control of the rogue Pashas, despite Morocco's sultan Mohammed III's 1777 promise of protection for American ships. In 1835, for example, they lost the ability to send troops to subdue them. What is viewed as a fundamentalist war, in retrospect, was actually more like a Mafia strong-arming tactic.

Tired of being drained by the tributes, the United States refused to pay. A group of North African Pashas declared war on the United States, which ended in a treaty to lower the tribute amount. The United States experienced its first foreign military victory in a siege in Derna in Libya, which would be immortalised in the public's imagination in the hymn of the United States Marine Corps. After the war of 1812, the US finally managed to defeat the corsairs and avoided paying tribute thereafter.

In 1912, the Italo-Turkish war stripped the Ottoman Empire of these regions and cobbled them together into what we recognise today as the shape of Libya. Like the French in Algeria, Libya was an integral part of the colonial country; they said it was the "Fourth Coast" of Italy. Nonetheless, their conquest wasn't completed until well into the Mussolini's rule in the Thirties. Libyans, under the command of Omar Mukhtar, maintained a fierce resistance movement in Cyrenaica.

In response to Mukhtar's uprisings, Italian rule repaid the Libyans with extreme brutality. Their concentration camps were mostly centred in Cyrenaica. Italy depopulated much of Libya, already a relatively small nation – a staggering quarter of the population was killed through cleansing measures and suppression.

Cyrenaica, which lay in ruins, was only saved by the development of trading routes

"A quarter of the population was killed through cleansing measures"

2 December 1979

Demonstrators in Libya attack the US embassy in Tripoli apparently in support of the Islamic Revolution in Iran.

12 August 1981

President Reagan orders US jets to attack Libya. The government deploys a large naval force into the disputed Gulf of Sirte, which the US views as international waters – despite Libya claiming it is territorial waters.

10 March 1982

Reagan declares the first of a series of economic sanctions against Libya, eventually crippling its economy.

21 December 1988

Pan Am flight 103 is blown up over Lockerbie, Scotland by orders from Libya. All 270 people aboard are killed.

28 March 1996

Qadhafi sends troops to put down a rebellion in northeastern Libya that was sparked following the escape of 400 Islamic extremists from a political prison.

28-29 June 1996

1,270 inmates are executed in Tripoli's Abu Salim prison. The bodies are not uncovered until a mass grave is discovered by rebels in 2011.

30 August 2008

Italian Prime Minister and Colonel Mu'ammar al-Qadhafi sign a historic cooperation treaty. Italy agrees to pay \$5 billion in reparations for Italian colonialism in Libya. and commerce by the Senussi Sufi order, transforming Libya from being mired in poverty into an relatively wealthy state. With this newfound power came political clout, and after backing the Allies in World War II, the UK repaid the Libyans by installing Idris I as monarch.

Libya under Qadhafi

While Idris I was away in Turkey seeking medical treatment, Colonel Mu'ammar al-Qadhafi led a military group known as the Free Officers Movement into Benghazi to depose Idris I. He abolished the monarchy, dismantled the apparatus of power in Cyrenaica and moved them once again to Tripolitania.

The Eastern Libyans would repay him by attempting multiple coups later on. Initially, they were interested in liberalism, but as time passed their cynicism forced them to become more radicalised. Nonetheless, as soon as Qadhafi got power, he began to change the country into a dictatorship, albeit under a few ideological guises. He started by repressing the aristocracy and merchant middle classes in Cyrenaica, seeing them as unfairly controlling most of the country's wealth and commerce.

At first glance, his rule could have seemed idyllic. After exploiting Libya's extensive oil wealth, Qadhafi provided extensive, free social services to his population, and even began an "underground river" project to bring desalinated water to the middle of the desert from the coast to render more of the country hospitable for habitation and agriculture. But this period was also marked by equally ambitious and often eccentric domestic policy and tumultuous relationships with other countries.

From the period of the 1969 coup to 1973, he followed an ideology of Arab socialism. However, following the failure of the Federation of Arab Republics with Syria and Egypt, he divorced himself. He viewed himself as a bulwark against communism, but while nonaligned, began to cultivate a relationship with the USSR. This began to alienate the USA.

In 1973, Qadhafi began to have grander visions of himself as the man who would lead the world against the forces of evil in his apocalyptic vision. Whereas in the Libyan Arab Republic days he concentrated on Libya's economic infrastructure, after 1973 he began to increasingly involve himself with foreign policy. Meanwhile, at home, he instituted what he termed a "cultural revolution" against those very same forces. This would be instrumental in tilling fertile ground for his overthrow.









"Qadhafi began to have grander visions of himself as the man who would lead the world against evil"

2009

Foreign workers and disgruntled minorities protest in the main square of Zawiya against local authorities. The protests are followed by race riots and then are finally suppressed.

15 February 2011

Inspired by calls for revolution in neighbouring Arab countries, opposition figures organise demonstrations in Benghazi via the internet. They begin to fight with Molotov cocktails and rocks but are met with overwhelming force.

19 February 2011

Loyalists fire on mourners in Benghazi, thereby escalating demonstrations into an armed conflict. The level of force begins to escalate after this point and eventually includes air strikes by the Libyan Air Force as well as ground troops and artillery.

27 February 2011

The National
Transitional Council
is formed as the
political face of
the opposition
in Benghazi.

17 March 2011

NATO approves a no-fly zone in Libya. This is followed by an air campaign by NATO and allied forces.

19 September 2011

Rebel forces advance on Sirte from the east. Between September and October, three sieges are repelled by Qadhafi loyalists holed up in the city, even despite National Transitional Council reinforcements from the west. Early on, he imposed an Arab identity on Libya that excluded nomadic, non-Arab minorities like Tuareg and Berbers. Traditionally, Tuaregs had cross-border relations on old trade routes that ignore modern borders and therefore this allowed them income independent of population centres. Therefore, sedentary, Arab populations became suspicious of their loyalties. In short, it was nothing less than institutionalised racism and Oadhafi denied the minorities citizenship.

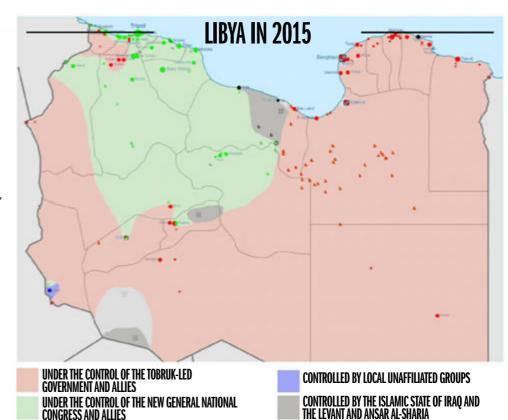
Starting in the Eighties, he began to look at himself as the leader of the African continent after being disillusioned with Arabism, opening his borders to migrants from the rest of Africa. Qadhafi would see them as allies in a struggle against his international enemies, so armed Tuareg rebels against his Saharan neighbours. He wanted control over neighbouring Chad and Mali, both rich in natural resources.

Eventually Qadhafi over-extended Libya and reached further than he could punch. After sponsoring a slew of terrorist attacks – like the infamous Lockerbie bombing – against the US in retribution for bombing Libya, the country was left isolated. The United Nations imposed the first of a series of crippling sanctions in March 1992. Again, Libya's infrastructure and economy began to crumble and its population was polarised.

The ideological vacuum created by the fall of the Soviet Union meant that the only viable alternative was Islamism. This movement began to grow, especially in Cyrenaica, which languished in disrepair under Qadhafi.

He attempted to bridge divides within Libyan society, especially those aforementioned cultural and political gulfs. While the de jure capital was still Tripoli, the de facto power was moved to Sirte, as he wanted to bring together the schisms of the country. Additionally his post-Arabism sense of self-importance meant that he envisioned this Sirte ideal also in bringing together the entire African continent. It was here that the formal declaration of the African Union occurred. Ultimately, though, it was in Sirte that he would eventually meet his horrifically bloody end.

In the post 9/11 world, Qadhafi knew he would be on the list of targets for the West and wanted to patch up relations – it was too little, too late. After the government used air



"It was in Sirte that Qadhafi would meet his horrifically bloody end"

superiority to kill thousands of demonstrators and later rebels, in March 2011 NATO approved a no-fly zone in Libya and began its air campaign against Qadhafi. The colonel was killed on 23 October the same year.

Libya in chaos

By 2012, Libya showed signs of setting out on a path of becoming a stable, modern democracy with a very high standard of living. However, the militias that had overthrown the government were still restless. During the 2011 ousting of Qadhafi, there was no ideological cohesion between the opposition other than that they wanted to rid their nation of the regime. Some wanted Libya to become a North African mirror of a Western capitalist republic, some wanted it to become an Islamic theocracy. But overall, the picture was of a directionless, cacophony of bickering on where the country should head. Some were even willing to challenge the new rebel government.

When an election to choose the make up of the General National Congress (GNC) of the new Libyan state was held on 7 July 2012, a significant 61.58 per cent of eligible voters showed up – in spite of threats from extremists. To put this in perspective, the 2012 US presidential election brought out 57.5% of the electorate and the 2010 UK general election brought out around 65% of voters. In Libya, voters elected a majority of independent representatives, rather than favouring parties.

Elections were held again for a new, internationally recognised Council of Deputies in June 2014 after the GNC's mandate expired, and the parties that dominated the GNC were heavily defeated. Islamists attempted to gain the upper hand and accused the Council of Deputies of being manned by former Qadhafi loyalists to tarnish their image. When things came to a head, the Islamist parties and their militias started a rival assembly in Tripoli.

Meanwhile, in Cyrenaica and in Fezzan, while the Council of Deputies has still managed to hang on, small pockets of Islamist extremist insurgencies, like Ansar al-Sharia and even ISIS, developed their own modest strongholds.

Cultural differences of the different regions have served to fragment Libya along its demographic fault lines, rather than unify it. It is still unclear how long these difficult birth pangs will last before a new state can take its first steps as one.

20 October 2011

Sirte falls to rebel forces. Mu'ammar al-Qadhafi is captured after taking refuge in a drainpipe and executed on site. The NTC promised a full investigation, but in a fervour rebels execute him on the spot.

16 December 2011

General Khalifa Haftar's son is abducted and detained at the Tripoli airport by militiamen who had started attacking a few days earlier. The event sets off tit-for-tat attacks across Libya between various rebel militias.

6 March 2012

Tribal and militia leaders in Benghazi unilaterally declare semi-autonomy for Cyrenaica.

11 September 2012

Islamist militiamen attack the US Consulate and a CIA annex in Benghazi with small arms, including assault rifles, grenades, RPGs, and mortars. Ansar al-Sharia appears on the map as a political force.

24 June 2014

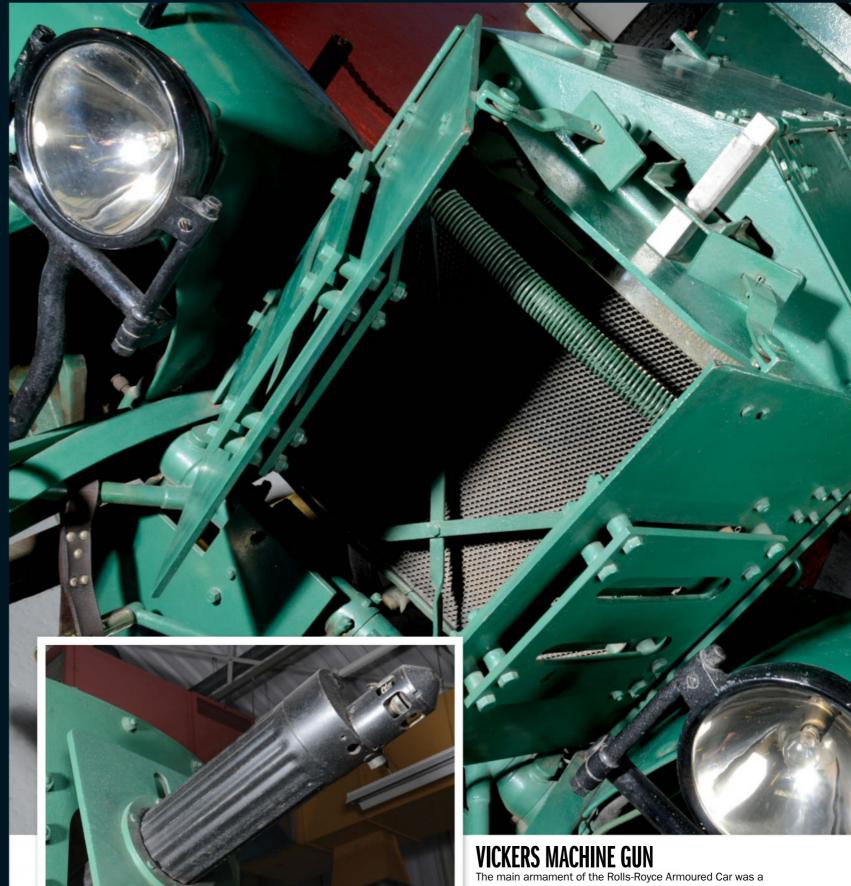
The Council of Deputies is formed following an election that humiliated Islamist parties – who had largely boycotted the election – and the expiry of the GNC's mandate.

5 October 2014

Fighters from a branch of the Islamic State of Iraq and Syria seize the city of Derna from the internationally recognised government. Within weeks they seize other municipalities.







The Vickers was used on a ball-mounting mechanism, which improved its aim

and range of fire

.303 water-cooled Vickers machine gun. Operating from the self-turning turret above, the gunner could spray their target with bullets while being shielded from return fire. The Vickers was used extensively in all theatres of World War I and was an effective weapon against infantry. On the armoured car, it could suppress insurgents and uprisings with ease. As well as the Vickers, each member of the crew carried sidearms, and a Hotchkiss air-cooled machine gun was often stowed aboard for dismounted use.



ROLLS-ROYCE ENGINE

The heavy armoured body of the Rolls-Royce peaked at 13mm thick in critical spots so a powerful engine was required to shift the bulk. A six-cylinder water-cooled engine ran with minimal vibration and noise, which helped enormously with the armoured car's reconnaissance capabilities. The Mark I may have weighed 4,689 kilograms (10,337 pounds) but the engine still gave the vehicle 80 horsepower (60 kilowatts), which allowed it to reach a top speed of 97km/h (60mph). The engine itself was covered in armour to protect it from gunfire.



WHEELS AND TYRES

The metallic rims of the car's four wheels allowed it to traverse boggy ground and dirt tracks as well as tarmac and paved roads. The wheels were not protected by armour and punctures from gunfire could

be an issue with the Mark I, so two spare tyres on either side were provided. The rear wheels were twin disc while the front two were single disc. As time wore on and newer updates arrived, the wheels were made thicker to protect from puncture and improve the ride quality.

ARMOURED CARS THROUGH THE 20TH CENTURY HOW THESE MACHINES DEVELOPED FROM THE ROLLS-ROYCE TEMPLATE

SCHWERER PANZERSPÄHWAGEN

A loophole in the Treaty of Versailles meant there was no limit on German armoured car production. The Wehrmacht generals used this to their advantage and soon produced a fleet of Schwerer Panzerspähwagen (heavy reconnaissance armoured cars). During the war, they were primarily used as scout vehicles and came in six and eight-wheel versions.



Coming into service in 1942, more than 9,000 of these lightly armoured vehicles were produced by the USSR. Skipping across the battlefields, it was used to quickly and safely transport army officers. Its speed and mobility made it a useful asset on the Eastern Front against the armies of the Third Reich.

M1117 ARMORED SECURITY VEHICLE

Used frequently by the US Army from its inception in 1999, the M1117 is the modern update of the armoured car. Essentially a heavy-duty version of the popular Humvee, it has been used extensively in conflicts in the Middle East and was developed after the Battle of Mogadishu.











"ARMOURED CARS WERE ALSO USED EXTENSIVELY IN LAWRENCE OF ARABIA'S OPERATIONS AGAINST THE TURKS"



ARMOURED CARS ACROSS THE EMPIRE THE ROLLS-ROYCE WAS SENT OUT ACROSS THE WORLD TO ASSIST THE BRITISH WAR EFFORT

WORLD WAR I

At the start of the war, armoured cars were quickly snapped up by the RNAS (Royal Naval Air Service) for use in patrols in Dunkirk. They were also used extensively in Lawrence of Arabia's operations against the Turks. Two squadrons were even sent to Gallipoli, one of Britain's biggest failures of the war.



IRISH CIVIL WAR

After being used to help quash the 1916 Easter Rising, the Rolls-Royce was once again pressed into action across the Irish Sea in the 1922-23 civil war. Fighting on the side of the Irish Free State Government, they participated in street conflicts in Dublin, Cork and Waterford.



World War II

Despite being relatively dated, there were still 76 Mark I 1924 Pattern vehicles in active service in 1941. An upgrade of the original model had also been commissioned and was called the Fordson. Equipped with a Boys anti-tank rifle, it policed the British-occupied Middle East.



THE TANK MUSEUM

Situated in the Bovington Army **Camp in Dorset, The Tank Museum** was opened in 1947. It contains more than 300 vehicles from 26 different countries, from the World War I Mark I tank to the currently serving Challenger 2. The Rolls-Royce Armoured Car was given to the museum in 1949 and is still in good working order. The Rolls-Royce opens the show at the museum's yearly Tankfest event, the world's best display of historic moving armour, held on the last weekend of June. Visit www.tankmuseum.org for the museum's opening hours and admission information.





Images: Bovington Tank Museum

BOOK REVIEWS

History of War's pick of the newest military history titles waiting for you on the shelves

BERLIN: THE FINAL RECKONING

Writer Karl Bahm Publisher Amber Books Price £19.99

A FIRM FOUNDATION FOR THOSE UNFAMILIAR WITH THE DEATH THROES OF THE THIRD REICH, AND THE END OF WORLD WAR II

he Battle for Berlin, which marked the end of the Second World War in Europe, was the appalling climax of the darkest chapter in human history. It was an ideological Armageddon played out by Sovietstyle Communism and National Socialism, two now discredited political doctrines, for the heart of Europe. It ended with Hitler's suicide, a Soviet flag over the Reichstag and the streets of Germany's once-elegant capital shattered, ablaze and choked with the corpses of more than half a million soldiers and civilians.

It is, of course, an event that has been much written about, with Antony Beevor's seminal work *Berlin: The Downfall 1945* arguably the pick of the bunch. While Beevor's book is a time machine that transports you to the hideous dark heart of those days, Bahm's work is a much more superficial affair. If that sounds like a criticism, it is not.

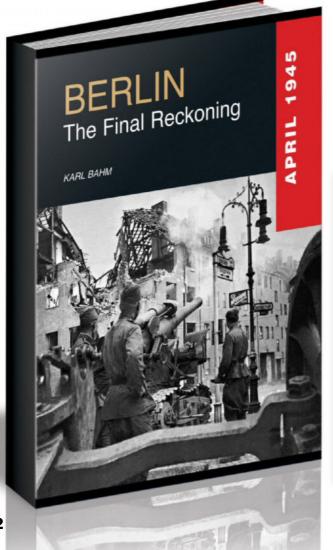
This book sets out to give the reader a well-structured, easy-to-understand guide to one of the most important battles in history, and it does that job very well. The events that led to the final assault on Berlin in April 1945, and more particularly the chaotic battle that led to its capture, are a tangle of truths that involved a cast of literally millions. As such it is not the easiest battle to get a clear overview of.

Bahm's book, however, does an admirable

job of doing just that. His work provides a clear narrative of how those events unfolded, telling it with a decent feel for the drama of this epic confrontation, supporting his text with graphics and images, much as a magazine might. It also provides some interesting insights into how Germany's military commanders seemed to finally come round from the intoxicated trance Hitler had held them in for the previous 12 years. Many, as Bahm points out, faced with impending annihilation, simply stopped obeying his diabolical orders. The fanatics fought to the death, of course, but one can only wonder how many thousands of troops' lives (including countless children press ganged in uniform) were spared by their commanders' refusal to send them marching into the abyss just behind their beloved Führer.

So then, this book is both a good starting point for those wishing to learn about the battle, and a decent reference work for those who want it in shorthand

"This book sets out to give the reader a well-structured, easy to understand guide to one of the most important battles in history"





ARDENNES 1944: HITLER'S LAST GAMBLE

Writer Antony Beevor Publisher Penguin Viking Price £20.99

ANOTHER ENGROSSING, IN-DEPTH STUDY BY ONE OF THE MOST WIDELY RESPECTED HISTORICAL WRITERS

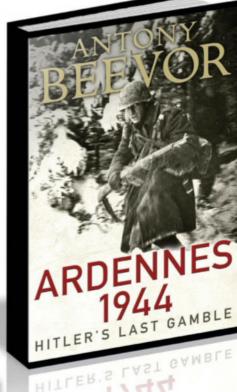
Antony Beevor, who's already given us possibly the definitive accounts of both the Battle of Stalingrad and the Battle of Berlin, returns. In his latest work, he focuses his magnifying glass on the last winter of World War II and the infamous Battle of the Bulge.

So, a little background: By December 1944, Nazi Germany and Hitler's forces were in full flight on two fronts. In the east they were being chased back to Berlin by the tidal wave of Red Army troops Stalin had unleashed against them. In the west, the Allies had been forced back almost to Germany's borders and they now had their backs to the Rhine.

This Allied advance, however, had overstretched itself. Although the port of Antwerp was liberated on 4 September, German defences still controlled the approaches to it. This meant the Anglo-American spearhead on Germany's doorstep was still being supplied

from Normandy, hundreds of miles to the west. Hitler spotted an opportunity. If Antwerp could be recaptured before it became serviceable, he figured, then the Allies could be stopped in their (tank) tracks. Do that, create sufficient chaos, inflict significant casualties, then who knows? Maybe weaken the resolve of the already bickering British and Americans? After that, perhaps broker a favourable peace deal with them that would allow his troops in the west to join the fight against the Russians in the east? As last gambles went, it didn't lack ambition.

As he'd done in 1940, when his troops had first invaded western Europe, Hitler decided to attack through the Ardennes Forest. He identified an 80-mile-long, poorly defended bulge in the American front line running from southern Belgium to central Luxembourg. His plan was simple. He'd punch through it, then swing his troops north, seize Antwerp, and



split the Anglo-American force in two. Hitler started putting his bold plan into action in October 1944, massing troops at the German border. He was careful to keep his intentions secret, but as Beevor reveals, Allied intelligence clearly knew he was up to something. That the Allied commanders then chose to ignore their warnings seems to have been down to what Beevor calls "victory fever". Germany, it was believed, was shattered; it had no capacity to launch an offensive, besides, the war would be over by Christmas.

But wars never are, are they? Germany was far from done, and, as a wartime economy, would actually see production figures peak during the final months of 1944. If the Allied high command had no idea what was about to hit them, the GIs at the front had even less.

When Hitler's offensive came on 16
December, it was huge, ferocious and well
equipped. Outnumbered in places ten to
one and facing one of the biggest artillery
bombardments of the war, the US line soon
collapsed. As the Germans raced forward,
they cut off thousands of ill-prepared American
troops. What then unfolded over the next month
was the largest land battle in American history,
fought out with outstanding bravery on both
sides in bitter temperatures.

There are many fine books on this Alamostyle showdown, not least Peter Caddick-Adams' opus *Snow and Steel*, but Beevor's account is arguably the most accessible. His style is so cinematically engaging, the range of his research so thorough, and the scope of his narrative – as he takes us from leaders moving troops about on a map to men getting blown apart on their behalf – is as masterful as ever. If you're a fan of Beevor's work, find some space on your bookshelf for this one. If you've never read him before, start here and work your way back – it's history nerd heaven!





GREAT BATTLES: WATERLOO

Writer Alan Forrest Publisher Oxford University Press Price £18.99

A LOOK AT ONE OF THE MOST FAMOUS BATTLES IN BRITISH MILITARY HISTORY – AND THE POLITICAL AFTER EFFECTS THAT WERE FELT ACROSS EUROPE IN ITS WAKE

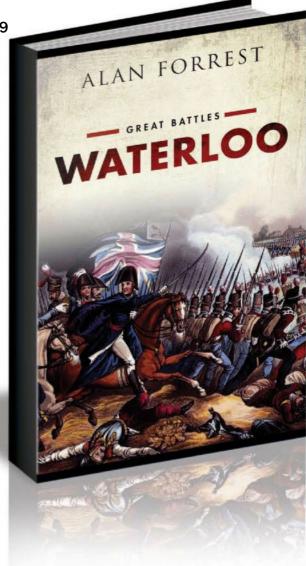
With this year marking the 200th anniversary of the Battle of Waterloo, interest in the famous battle is rising. This book, part of the *Great Battles* series, is more than just a quick cashin. Its author, Alan Forrest, is Emeritus Professor of Modern History at the University of York, and has written extensively on the French Revolution and Napoleonic history. While the book is relatively brief, and makes for a quick and easy read, its readers are in experienced hands.

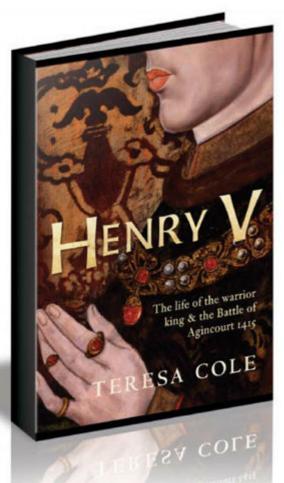
If you're looking for an exhaustive critique of the battle, do be warned, as Forrest takes a different, very specific slant on Waterloo, focusing much of the book on what came after the event, including how it was used as a propaganda tool, how its memory has come to mean different things for the different nations involved, and what it meant for its two key figures: Napoleon and the Duke of Wellington.

The Battle of Waterloo has come to be romanticised by the British, though Forrest makes no bones about the realities of it, dubbing it a "murderous encounter." Wellington's victory would become the foundation of his political career, but Forrest outlines how the duke was reluctant to boast about his victory due to the significant losses sustained on all fronts. Forrest also explains how the battle would become an important part of the British national identity, whereas in Prussia it became overshadowed by other events, and in France it was also romanticised, remembered for the Old Guard's last stand and the fall of the once-triumphant Napoleon.

Overall, it's arguably more interesting for looking beyond the action on the battlefield and into the political landscape of a continent constantly at war with itself. However, it's one part of a bigger story, a worthwhile accompaniment to more detailed books.

"The Battle of Waterloo has come to be romanticised by the British"





HENRY V: THE LIFE OF THE WARRIOR KING & THE BATTLE OF AGINCOURT 1415

Writer Teresa Cole Publisher Amberley Price £20

A BIOGRAPHY OF ONE OF THE MOST INFLUENTIAL KINGS IN MEDIEVAL HISTORY – ONE WHOSE INFI LIFNCE WOULD SHAPE BRITISH HISTORY FOREVER

It seems as if Medieval history has never had so much mainstream attention. With a number of hugely popular television series and books rooted in the subject matter – whether they're highly fictionalised or otherwise – viewers and readers are finding a newfound interest in the dramatic history of our Medieval monarchs. Henry V, argues author Teresa Cole, is one the most important of them all, making significant changes to the lands that he ruled and leaving a legacy that would affect Great Britain for centuries to come.

It seems that Cole understands the importance of drama, opening the book with a list of historical figures – or "cast of characters" as she names them – who would play a major role in the life and times of Henry V. No doubt it's a nod to the famous Shakespeare play on the king, though readers will be thankful as the book continues, packed with a large number of people, many of whom have the same name.

The main thrust of Cole's narrative is how he rose to power from a childhood of relative insignificance. She describes how even being the grandchild of King Edward III was not of particular importance, and it was only a twist of fate that saw him crowned king of England. It's a thorough account of Henry's life, most heavily focused in his war with France, which Cole maintains Henry was preparing for from the moment he ascended to the throne. A whole chapter is dedicated to the Battle of Agincourt, which makes for some of the book's best material.

As Henry's life is so steeped in crucial events from English history – Agincourt, the Hundred Years' War, the rise of the House of Lancaster and planting of seeds for the War of the Roses – it's little surprise there's so much to take from Cole's book. Though, it's only likely to whet the appetite for the finer details of the kings who came before and after Henry.

THE SOMME 1870-71: THE WINTER CAMPAIGN IN PICARDY

Writer Ouintin Barry Publisher Helion Price £29.95

A DETAILED LOOK INTO THE CLOSING BATTLES IN FRANCO-PRUSSIAN WAR – AND THE FIGHTING THAT TOOK PLACE ON THE SAME GROUND MADE FAMOUS IN WORLD WAR I

As part of Helion's series of books on 19th-century history, Quintin Barry's book tells the story of a lesser-known conflict to take place in the Somme. Not to say these battles are insignificant in any way – fought in several stages between 24 November 1870 and 19 January 1871, it saw the French Army of the North, led for the most part by General Louis Faidherbe, suffer a string of failures, culminating in a decisive defeat to German forces in the Battle of Saint Quentin. The French and Germans fought in horrendous weather conditions. All the while, Paris was under siege.

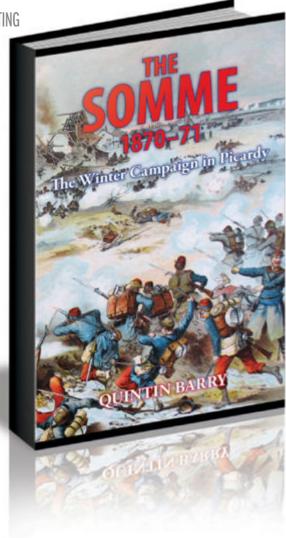
Like the others in the series, the book itself is nicely put together. It's full of pictures, illustrations and maps, all of which bring the battles to life (the colour-coded maps are especially helpful, outlining the axis and directions of the German campaign

and French defensive lines). It is, however, an incredibly dense tome. Though packed with detail on the events that took place in the Somme, it's at times a difficult read, with so much detail to take in that it's 275 pages will likely feel like 500.

It does, of course, feel unfair to criticise a historical book for delivering too much information. There is a certain poignancy to it also, with many of the place names familiar from the more notorious battles that took place in the Picardy region decades later, the book is a stark representation of a continent charging towards a war more vast and awful than its individual nations could have ever known at the time.

Overall, *The Somme 1870-71* is far more suited to those with a specific interest in the events of the Franco-Prussian war than casual readers.

"The book is a stark representation of a continent charging towards a war more vast and awful than its individual nations could have ever known at the time"



Plan your perfect day out Inspire your family and go somewhere amazing this weekend. GREAT DAYS OUT, the new FREE iPhone app from HOW IT WORKS







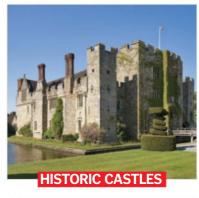








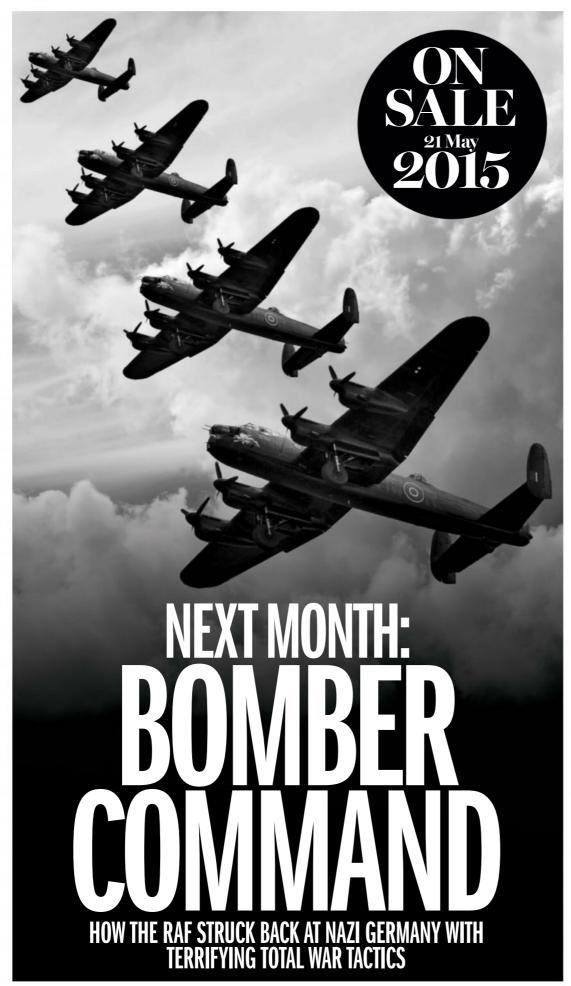






Search 'Great Days Out' in the App Store or visit www.greatdaysoutapp.com





Imagine Publishing Ltd Richmond House, 33 Richmond Hill Bournemouth, Dorset, BH2 6EZ +44 (0) 1202 586200 Web: www.imagine-publishing.co.uk www.greatdigitalmags.com www.historyanswers.co.uk

Magazine team

Deputy Editor Tim Williamson

TO 01202 586 200

frontline@imagine-publishing.co.uk

Editor in Chief James Hoare

Senior Art Editor Helen Harris

Senior Designer Curtis Fermor-Dunman

Production Editor Callie Green

Staff Writer Jack Griffiths

Photographer James Sheppard

Publishing Director Aaron Asadi

Head of Design Ross Andrews

Contributors

Ben Biggs, Tom Fordy, Marwan Kamel, Nick Soldinger, Amy Squibb, Alex Hoskins, Frances White

Acute Graphics, Alamy, Art Agency, Bovington Tank Museum, Chris Collingwood, Corbis, Ed Crooks, FreeVectorMaps.com, Getty Images, Adrian Mann, PZ Publishing, Rebekka Hearl, Rex Features

Advertising

Digital or printed media packs are available on request.

Head of Sales Hang Deretz

☐ 01202 586442

hang.deretz@imagine-publishing.co.uk

Account Manager Lee Mussell

☎ 01202 586424

lee.mussell@imagine-publishing.co.uk

International

History of War is available for licensing. Contact the International department to discuss partnership opportunities

Head of International Licensing Cathy Blackman

\$\times +44 (0) 1202 586401

licensing@imagine-publishing.co.uk Subscriptions

To order a subscription to History of War

7 0844 245 6931

 □ Overseas +44 (0) 1795 592 869 Email: historyofwar@servicehelpline.co.uk

13 issue subscription (UK) – £52

13 issue subscription (Europe) - £70

13 issue subscription (USA) – £80 13 issue subscription (ROW) – £80

Head of Subscriptions Sharon Todd

subscriptions@imagine-publishing.co.uk

Circulation

Head of Circulation Darren Pearce

77 01202 586200

Production Director Jane Hawkins

2 01202 586200

Group Managing Director Damian Butt Printing & Distribution

Wyndeham Peterborough, Storey's Bar Road, Peterborough, Cambridgeshire, PE1 5YS

Distributed in the UK, Eire and ROW: Marketforce, Blue Fin Building, 110 Southwark Street , London, SE1 0SU 203 148 3300

Distributed in Australia by: Network Services (a division of Bauer Media Group), Level 21 Civic Tower, 66-68 Goulburn Street, Sydney, NSW 2000 \uppi + 61 2 8667 5288

Disclaimer

Disclaimer

The publisher cannot accept responsibility for any unsolicited material lost or damaged in the post. All text and layout is the copyright of Imagine Publishing Ltd. Nothing in this magazine may be reproduced in whole or part without the written permission of the publisher. All copyrights are recognised and used specifically for the purpose of criticism and review. Although the magazine has endeavoured to ensure all information is correct at time of print, prices and availability may change. This magazine is fully independent and not affiliated in any way with the companies mentioned herein. Pur use the material to Imagine Publishing an invexcable, perpetual, reyaitly free licence to use the material across its entire portfolio, in print, orline and digital, and to deliver the material to existing and future clients, including but not limited to international ilensees for reproduction in international, ilensed editions of Imagine products. Any material you submit is sent at your risk and, although every care is taken, nother Imagine Publishing on its employees, agents or subcontractors shall be liable for the loss or damage.



ISSN 2054-376X © Imagine Publishing Ltd 2015



THE COLD WAR IN NUMBERS THE COLD WAR

Frightening figures from more than four decades of mutually-assured destruction



The estimated amount of nuclear weapons on Earth today. The Berlin Wall fell 26 years ago

The operational range of the US Titan II intercontinental ballistic missile. The Soviet SS-9 could manage 1,000 kilometres more

5,000

Soviet planes capable of delivering a nuclear bomb by 1981. The USA had 4,000.

10.4 MILLION

tons of TNT: Power of the first hydrogen bomb, exploded in a test on 1 November 1952



tons of TNT: Power of the 'Little Boy' atomic bomb dropped on Hiroshima on 6 August 1945

GALLIPOLI 1915



ANZAC

The Australian and New Zealand Army Corps landed at Gallipoli on 25 April 1915, part of a seaborne assault on entrenched positions on Turkey's Aegean Coast.

Despite acts of great bravery, poor leadership and limited territorial gains meant that the surviving ANZAC troops were evacuated by the close of the year.



Waltzing Matilda

"Nearly blew us right back to Australia. But the band played Waltzing Matilda as we stopped to bury our slain. We buried ours and the Turks buried theirs. Then we started all over again". This poignant ballad, originally written and recorded by Eric Bogle, was famously covered by The Pogues.



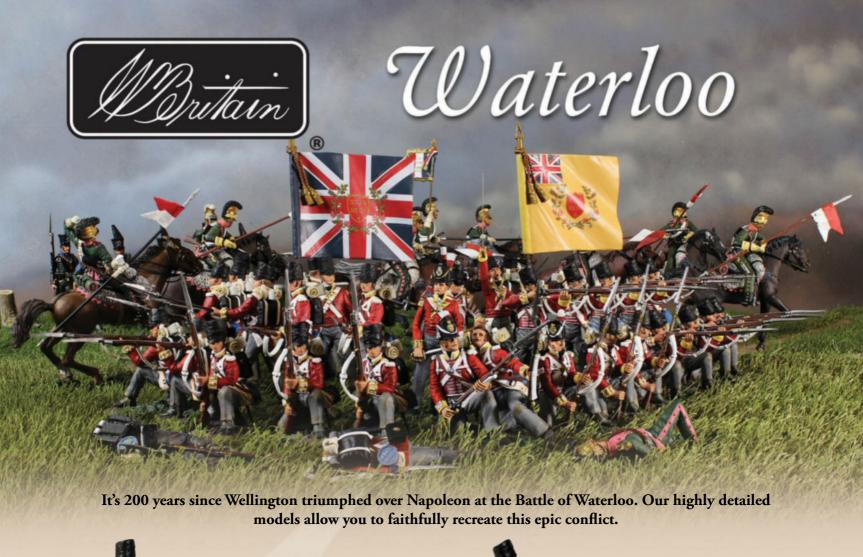
Lancashire Landing

The 1st Battalion of the Lancashire Fusiliers landed at dawn on 'W' Beach, Cape Helles, 25 April 1915. Under heavy machine-gun fire the unit suffered 50% casualties. By 07.15 the survivors had established a beachhead. Six Victoria Crosses were awarded to officers and men of the Battalion, forever known as 'Six VCs before Breakfast'.

HMS Agamemnon

HMS Agamemnon, a Royal Navy battleship took part in the huge naval contribution to the Gallipoli campaign, seeking to weaken Ottoman Turkish operations with bombardments from the sea followed by delivering the beach landings of Australian, New Zealand, British, Indian, Canadian and French forces.

Order from www.philosophyfootball.com or by phone from 01255 552412





B36106 British 44th Regiment of Foot Standing At Ready No.1



B36124 British 44th Foot Light Company NCO Blowing Whistle



B36104 British 44th Regiment of Foot Standing Firing No.1



B36107 British 44th Regiment of Foot Kneeling Firing No.1



B36122 British 44th Foot Light Company Kneeling Firing



B36123 British 44th Foot Light Company Crouching Running



B36125 British 44th Foot Light Company Looting French Officer



B36108 British 44th Regiment of Foot Kneeling At Ready No.1